HACNE40	HACNE40R	990	229 - 426	3165		H0616: 3, L0665: 3, L0794: 2, L0659: 2, L0779: 2, H0423: 2, H0171: 1, H0685: 1, H0675: 1, S0408: 1, H0013: 1, L0105: 1, H0581: 1, T0110: 1, S0214: 1, H0622: 1, H0561: 1, S0002: 1, H0529: 1, L0762: 1, L0667: 1, L0766: 1, L0805: 1, L0655: 1, L0658: 1, L0790: 1, H0702: 1, H0648: 1, H0521: 1, L0748: 1, L0777: 1, L0758: 1 and L0366: 1.
HACNF21	HACNF21R	991	3 - 542	3166	Asp-30 to Thr-37, Lys-81 to Glu-87.	
HACNF41	HACNF41R	992	2 - 91	3167	Ile-13 to Gly-18.	
HACNI47	HACNI47R	993	39 - 500	3168	Val-23 to Lys-30, Tyr-40 to Asn-50, Lys-63 to Lys-68, Leu-92 to Asn-102.	AR089: 18, AR060: 15, AR104: 14, AR096: 9, AR055: 6, AR061: 4
HACNI86	HACNI86R	994	239 - 370	3169		L0754: 12, L0740: 8, L0731: 8, S0003: 6, L0649: 6, H0620: 5, S0214: 5, L0766: 5,

| L0803: 5, L0805: 5, |
| H0545: 4, L0748: 4, |
| H0341: 3, S0444: 3, |
| H0486: 3, H0012: 3, |
| H0644: 3, H0551: 3, |
| L0662: 3, L0653: 3, |
| L0663: 3, S0126: 3, |
| S0206: 3, L0779: 3, |
| L0757: 3, L0758: 3, |
| H0294: 2, S0212: 2, |
| S0376: 2, S0360: 2, |
| S0410: 2, H0580: 2, |
| H0632: 2, H0156: 2, |
| L0105: 2, L0471: 2, |
| H0494: 2, H0647: 2, |
| S0002: 2, L0646: 2, |
| L0771: 2, L0794: 2, |
| L0776: 2, L0807: 2, |
| L0438: 2, H0547: 2, |
| H0672: 2, S0330: 2, |
| H0626: 2, S3014: 2, |
| L0750: 2, L0752: 2, |
| L0759: 2, S0026: 2, |
| H0624: 1, H0686: 1, |
| H0685: 1, H0713: 1, |
| H0717: 1, S0116: 1, |
| H0664: 1, H0638: 1, |
| S0418: 1, S0420: 1, |
| L0005: 1, S0356: 1, |
| S0358: 1, S0476: 1, |

S0222: 1, H0586: 1, H0574: 1, T0039: 1, H0013: 1, S0280: 1, L0021: 1, H0575: 1, S0346: 1, H0581: 1, H0374: 1, H0309: 1, H0546: 1, H0024: 1, H0373: 1, H0051: 1, H0356: 1, H0266: 1, H0179: 1, S0318: 1, S0316: 1, H0687: 1, H0288: 1, H0031: 1, L0142: 1, H0628: 1, H0032: 1, S0036: 1, H0090: 1, H0591: 1, H0038: 1, H0616: 1, H0063: 1, H0413: 1, H0561: 1, H0366: 1, S0438: 1, S0440: 1, H0641: 1, S0144: 1, H0529: 1, L0762: 1, L0769: 1, L0641: 1, L0773: 1, L0381: 1, L0775: 1, L0375: 1, L0606: 1, L0809: 1, L0529: 1, L0368: 1, L0666: 1, L0664: 1, H0144: 1, H0701: 1, H0520: 1, H0659: 1, H0670: 1, H0651: 1,

HADDD29	HADDD29R	995	181 - 342	3170		H0539: 1, H0710: 1, S0152: 1, H0522: 1, H0696: 1, S0044: 1, S0406: 1, H0478: 1, L0756: 1, L0753: 1, S0031: 1, H0595: 1, S0434: 1, L0592: 1, S0011: 1, H0653: 1, S0192: 1, S0242: 1, H0542: 1, H0543: 1 and H0422: 1.
HADET44	HADET44R	996	2 - 304	3171	Asn-14 to Thr-26.	
HAHGU75	HAHGU75R	997	1 - 501	3172		
HAHHD12	HAHHD12R	998	1 - 96	3173	Leu-3 to Met-9, Gln-24 to Thr-32.	
HALSG11	HALSG11R	999	2 - 364	3174	Ser-25 to Cys-36, Gln-39 to Asp-56.	
HANGA96	HANGA96R	1000	40 - 246	3175	Asn-49 to Asp-54.	
HAOSA43	HAOSA43R	1001	61 - 222	3176		L0759: 8, S0010: 7, L0742: 7, L0455: 6, S0007: 5, L0809: 4, L0439: 4, H0013: 3, L0768: 3, L0753: 3, H0686: 2, S0134: 2, S0222: 2, H0052: 2, H0024: 2, L0769: 2, L0638: 2, L0521: 2, L0794: 2, L0438: 2, L0589: 2, L0608: 2.

HAOSB87	HAOSB87R	1002	1 - 348	3177	Val-77 to Val-86.	H0543: 2, H0341: 1, H0441: 1, H0586: 1, S0346: 1, S0049: 1, H0569: 1, H0050: 1, T0010: 1, H0598: 1, H0272: 1, L0666: 1, H0144: 1, H0689: 1, L0747: 1, L0366: 1 and H0423: 1.
HAOSC40	HAOSC40R	1003	55 - 327	3178	Pro-69 to Leu-76.	L0766: 8, L0803: 7, L0731: 7, L0758: 5, S0358: 4, S0360: 4, L0794: 4, H0547: 4, S0440: 3, L0662: 3, L0659: 3, L0809: 3, L0666: 3, L0663: 3, S0374: 3, L0755: 3, L0596: 3, H0543: 3, H0583: 2, H0004: 2, H0622: 2, L0194: 2, H0038: 2, S0422: 2, L0771: 2, L0551: 2, L0774: 2, L0655: 2, L0526: 2, L0665: 2, H0659: 2, L0747: 2, L0750: 2, L0756: 2, S0436: 2, H0624: 1, H0170: 1, H0159: 1, H0686: 1, H0685: 1,

HAOSE70R	1004	85 - 273	3179	H0650: 1, H0657: 1, S0116: 1, H0341: 1, S0442: 1, S0376: 1, S0444: 1, H0619: 1, L0717: 1, H0411: 1, S0222: 1, H0587: 1, H0497: 1, H0427: 1, H0042: 1, H0596: 1, T0110: 1, H0081: 1, H0050: 1, H0687: 1, S0003: 1, H0252: 1, H0213: 1, H0163: 1, H0591: 1, H0634: 1, H0616: 1, H0063: 1, H0413: 1, H0100: 1, H0529: 1, L0638: 1, L0637: 1, L0800: 1, L0764: 1, L0773: 1, L0521: 1, L0768: 1, L0784: 1, L0783: 1, L0788: 1, L0790: 1, L0664: 1, H0436: 1, S0392: 1, H0627: 1, L0748: 1, L0754: 1, L0749: 1, L0759: 1, H0445: 1, S0434: 1, H0423: 1, S0412: 1 and S0424: 1.
HAOSF68R	1005	1 - 630	3180	
HAOSE70				
HAOSF68				

HAOSG95	HAOSG95R	1006	51 - 485	3181	Arg-5 to Arg-17, Asp-25 to Val-31.	
HAOSI79	HAOSI79R	1007	1 - 543	3182	Val-7 to Glu-13, Thr-20 to Arg-26, Lys-34 to Phe-40, Arg-46 to Lys-51.	
HAOSJ27	HAOSJ27R	1008	2 - 166	3183	Lys-27 to Gln-39, Gln-47 to Thr-52.	
HAOSJ33	HAOSJ33R	1009	3 - 353	3184	Leu-3 to Glu-14, Ser-95 to Ala-105.	
HAOSI73	HAOSI73R	1010	1 - 114	3185		
HAOSK38	HAOSK38R	1011	1 - 303	3186	Pro-24 to Val-49, Tyr-51 to Leu-56.	H0585: 27, H0556: 17, L0595: 15, L0591: 13, L0593: 13, H0046: 12, H0543: 12, H0521: 11, L0747: 11, L0596: 11, H0265: 10, H0040: 10, H0266: 9, H0038: 9, H0494: 9, L0588: 9, H0656: 8, H0581: 8, H0617: 8, L0664: 8, H0519: 8, L0601: 8, L0163: 7, H0083: 7, H0529: 7, L0665: 7, L0602: 7, H0657: 6, H0599: 6, H0618: 6, H0318: 6, H0551: 6, L0666: 6, H0547: 6, H0542: 6, H0141: 5, H0402: 5, S0358: 5,

S0360: 5, S0046: 5,
H0013: 5, H0052: 5,
H0616: 5, H0087: 5,
H0264: 5, T0041: 5,
T0042: 5, S0440: 5,
L0662: 5, L0774: 5,
L0783: 5, L0748: 5,
L0751: 5, L0758: 5,
H0445: 5, L0599: 5,
L0608: 5, H0341: 4,
S0420: 4, S0354: 4,
H0619: 4, S0222: 4,
H0039: 4, H0213: 4,
H0560: 4, L0521: 4,
L0663: 4, L0565: 4,
L0750: 4, L0752: 4,
L0362: 4, L0615: 3,
H0686: 3, H0650: 3,
S0356: 3, S0045: 3,
H0438: 3, H0575: 3,
H0253: 3, S0010: 3,
H0251: 3, H0123: 3,
T0023: 3, L0456: 3,
H0124: 3, H0561: 3,
H0509: 3, H0641: 3,
H0646: 3, L0598: 3,
L0646: 3, L0768: 3,
L0655: 3, H0144: 3,
H0689: 3, H0659: 3,
H0666: 3, S0152: 3,

H0522: 3, S0028: 3,
S0434: 3, H0423: 3,
S0424: 3, H0506: 3,
H0352: 3, H0624: 2,
S0218: 2, H0663: 2,
S0376: 2, H0580: 2,
H0393: 2, L0717: 2,
H0261: 2, H0333: 2,
H0635: 2, S0049: 2,
H0596: 2, T0115: 2,
H0597: 2, H0024: 2,
L0483: 2, T0006: 2,
H0031: 2, H0673: 2,
H0090: 2, H0591: 2,
H0634: 2, H0063: 2,
H0059: 2, S0142: 2,
S0210: 2, L0770: 2,
L0769: 2, L0638: 2,
L0372: 2, L0649: 2,
L0776: 2, L0659: 2,
L0636: 2, L0542: 2,
H0520: 2, H0593: 2,
S0328: 2, H0696: 2,
S0044: 2, H0436: 2,
H0631: 2, S3012: 2,
S3014: 2, S0206: 2,
L0742: 2, L0439: 2,
L0592: 2, L0361: 2,
H0136: 2, H0422: 2,
H0222: 1, H0159: 1,

H0685: 1, S0342: 1, S0134: 1, H0583: 1, H0483: 1, H0255: 1, H0661: 1, H0662: 1, H0305: 1, S0418: 1, S0444: 1, H0489: 1, H0637: 1, H0151: 1, S0132: 1, H0411: 1, S0278: 1, H0369: 1, H0549: 1, H0441: 1, H0392: 1, H0298: 1, T0104: 1, H0600: 1, H0592: 1, H0587: 1, H0497: 1, H0331: 1, H0574: 1, L0622: 1, L0623: 1, H0486: 1, T0039: 1, T0040: 1, T0114: 1, H0244: 1, H0069: 1, S0280: 1, H0156: 1, H0004: 1, S0346: 1, T0071: 1, H0421: 1, H0085: 1, H0205: 1, H0204: 1, H0545: 1, L0471: 1, H0012: 1, H0246: 1, H0510: 1, H0375: 1, H0179: 1, H0687: 1, S0314: 1, H0328: 1, H0615: 1, H0688: 1, H0428: 1, H0622: 1,

H0424: 1, H0644: 1, L0142: 1, H0628: 1, H0169: 1, H0674: 1, S0364: 1, L0455: 1, H0316: 1, H0135: 1, T0067: 1, H0488: 1, H0412: 1, H0413: 1, S0038: 1, H0100: 1, L0351: 1, L0564: 1, H0022: 1, S0352: 1, S0150: 1, H0130: 1, H0647: 1, S0144: 1, S0426: 1, L0369: 1, L0763: 1, L0371: 1, L0761: 1, L0667: 1, L0627: 1, L0764: 1, L0773: 1, L0648: 1, L0767: 1, L0650: 1, L0775: 1, L0653: 1, L0382: 1, L0809: 1, L0793: 1, S0216: 1, H0697: 1, S0310: 1, S0126: 1, H0684: 1, H0435: 1, H0658: 1, H0660: 1, H0672: 1, S0378: 1, S0380: 1, H0518: 1, H0134: 1, S0406: 1, H0555: 1, S0037: 1, S0027: 1, L0754: 1, L0745: 1,

HAOSL36	HAOSL36R	1012	3 - 269	3187	
					L0786: 1, L0779: 1, L0757: 1, L0759: 1, H0444: 1, H0707: 1, S0436: 1, L0597: 1, L0594: 1, S0026: 1, L0697: 1, H0677: 1 and L0600: 1.	S0418: 10, L0749: 9, L0809: 7, S0406: 6, L0766: 5, L0748: 5, L0740: 5, L0752: 5, L0731: 5, S0360: 4, L0509: 4, L0665: 4, L0754: 4, S0424: 4, H0638: 3, S0420: 3, S0410: 3, H0013: 3, H0318: 3, H0545: 3, H0050: 3, H0040: 3, L0664: 3, H0658: 3, H0521: 3, L0750: 3, H0556: 2, H0341: 2, H0580: 2, S0222: 2, H0333: 2, L0471: 2, H0620: 2, H0687: 2, H0553: 2, H0673: 2, H0674: 2, H0068: 2, H0551: 2, H0494: 2, H0560: 2, S0438: 2, S0440: 2, H0509: 2, L0769: 2, L0638: 2,

L0771: 2, L0662: 2,
L0767: 2, L0804: 2,
L0774: 2, L0775: 2,
L0776: 2, L0659: 2,
H0144: 2, S0374: 2,
H0547: 2, H0684: 2,
H0435: 2, H0626: 2,
H0627: 2, L0439: 2,
L0756: 2, L0779: 2,
L0758: 2, L0759: 2,
L0605: 2, L0592: 2,
L0593: 2, L0595: 2,
H0543: 2, H0265: 1,
H0686: 1, H0657: 1,
H0484: 1, H0669: 1,
S0356: 1, S0444: 1,
H0675: 1, H0393: 1,
S0278: 1, H0613: 1,
H0497: 1, H0331: 1,
H0486: 1, H0618: 1,
H0253: 1, T0048: 1,
H0052: 1, T0110: 1,
H0544: 1, H0246: 1,
H0051: 1, H0355: 1,
H0594: 1, H0039: 1,
H0622: 1, S0368: 1,
H0030: 1, H0376: 1,
H0135: 1, H0038: 1,
H0087: 1, H0272: 1,
H0412: 1, H0413: 1,

| HAOSL47 | HAOSL47R | 1013 | 2 - 409 | 3188 | Thr-12 to Thr-17, Leu-31 to Met-36, Pro-97 to Lys-103, Gln-126 to Trp-136. | H0056: 1, H0623: 1, L0564: 1, T0041: 1, S0150: 1, H0633: 1, S0144: 1, H0538: 1, S0210: 1, S0002: 1, L0369: 1, L0506: 1, L0500: 1, L0501: 1, L0646: 1, L0374: 1, L0765: 1, L0363: 1, L0381: 1, L0803: 1, L0653: 1, L0493: 1, L0526: 1, L0783: 1, L0383: 1, L0666: 1, L0663: 1, S0006: 1, H0593: 1, S0126: 1, H0711: 1, H0682: 1, H0670: 1, H0672: 1, H0651: 1, S0152: 1, S0454: 1, S0262: 1, L0356: 1, S0390: 1, L0747: 1, L0780: 1, L0753: 1, L0755: 1, L0757: 1, H0707: 1, L0485: 1, L0599: 1, L0608: 1, L0601: 1, H0667: 1 and H0008: 1. L0748: 23, S0358: 12, H0616: 10, L0750: 8, L0752: 8, L0596: 8, H0031: 7, H0494: 7, |

L0731: 7, L0758: 7,
H0556: 6, H0024: 6,
L0770: 6, L0588: 6,
S0360: 5, S0046: 5,
S0476: 5, L0774: 5,
H0547: 5, L0439: 5,
L0740: 5, L0749: 5,
L0755: 5, S0420: 4,
S0250: 4, H0039: 4,
H0135: 4, H0551: 4,
L0766: 4, H0144: 4,
S0126: 4, L0742: 4,
L0743: 4, L0747: 4,
L0757: 4, L0591: 4,
H0170: 3, H0663: 3,
S0444: 3, H0486: 3,
H0200: 3, H0188: 3,
H0038: 3, H0100: 3,
L0769: 3, L0773: 3,
L0775: 3, S0031: 3,
H0445: 3, H0136: 3,
H0542: 3, H0543: 3,
H0624: 2, H0717: 2,
S0212: 2, H0484: 2,
H0255: 2, S0418: 2,
S0408: 2, S0410: 2,
H0393: 2, H0351: 2,
H0411: 2, S0222: 2,
H0592: 2, H0574: 2,
H0635: 2, H0427: 2,

H0036: 2, H0318: 2, H0545: 2, H0009: 2, H0178: 2, H0014: 2, H0644: 2, H0617: 2, H0032: 2, H0124: 2, H0068: 2, H0040: 2, T0067: 2, H0413: 2, H0623: 2, T0041: 2, T0042: 2, S0440: 2, S0150: 2, H0641: 2, H0529: 2, L0502: 2, L0500: 2, L0761: 2, L0764: 2, L0662: 2, L0767: 2, L0776: 2, L0657: 2, L0659: 2, L0782: 2, L0783: 2, H0690: 2, H0659: 2, H0672: 2, S0328: 2, H0134: 2, H0555: 2, S3012: 2, L0754: 2, L0759: 2, L0590: 2, L0592: 2, L0593: 2, L0594: 2, H0265: 1, T0002: 1, H0686: 1, S0040: 1, S0134: 1, H0583: 1, H0657: 1, H0341: 1, S0180: 1, H0483: 1, H0661: 1, H0664: 1, S0356: 1, S0442: 1, S0376: 1,

H0580: 1, S0007: 1, S0132: 1, L0717: 1, H0431: 1, H0370: 1, H0392: 1, H0600: 1, H0586: 1, H0333: 1, L0622: 1, T0060: 1, T0109: 1, H0013: 1, H0250: 1, H0069: 1, L0021: 1, H0599: 1, H0575: 1, H0618: 1, S0182: 1, H0251: 1, H0263: 1, H0596: 1, L0738: 1, H0041: 1, H0081: 1, H0012: 1, H0620: 1, L0163: 1, S0388: 1, S0051: 1, H0375: 1, H0266: 1, H0271: 1, H0687: 1, H0290: 1, S0003: 1, S0022: 1, H0428: 1, L0194: 1, H0553: 1, H0628: 1, H0673: 1, H0169: 1, L0456: 1, H0708: 1, S0366: 1, S0036: 1, H0163: 1, H0090: 1, H0591: 1, H0087: 1, L0060: 1, H0379: 1, H0412: 1, H0560: 1, S0382: 1, S0466: 1, S0438: 1,

HAOSP50	HAOSP50R	1014	183 - 380	3189	Ser-53 to Pro-60.	H0509: 1, S0210: 1, L0520: 1, L0762: 1, L0501: 1, L0765: 1, L0771: 1, L0521: 1, L0768: 1, L0387: 1, L0498: 1, L0375: 1, L0806: 1, L0655: 1, L0661: 1, L0807: 1, L0527: 1, L0382: 1, L0809: 1, L0519: 1, L0663: 1, S0428: 1, S0374: 1, H0723: 1, H0519: 1, H0593: 1, H0658: 1, H0648: 1, H0651: 1, S0330: 1, H0539: 1, S0378: 1, H0710: 1, S0152: 1, H0521: 1, H0522: 1, S0044: 1, H0576: 1, S0390: 1, S0028: 1, S0124: 1, S0032: 1, L0753: 1, S0434: 1, L0485: 1, L0581: 1, L0595: 1, L0366: 1, S0106: 1, H0668: 1, S0026: 1, H0653: 1, H0665: 1, S0194: 1, H0423: 1, H0422: 1, S0456: 1 and H0352: 1.

HAOSS30	HAOSS30R	1015	3 - 509	3190		
				Pro-11 to His-21, Glu-30 to Glu-41, Arg-55 to Ser-64, Arg-89 to Thr-96, Cys-99 to Gln-106, Pro-116 to His-124.	L0439: 16, S0222: 5, H0733: 4, L0770: 4, L0809: 4, L0747: 4, S0356: 3, L0471: 3, S0366: 3, L0766: 3, S0436: 3, H0556: 2, L0622: 2, H0373: 2, S6028: 2, H0266: 2, H0687: 2, H0617: 2, L0637: 2, L0803: 2, L0789: 2, H0518: 2, L0748: 2, S0434: 2, L0604: 2, H0686: 1, S0040: 1, H0583: 1, S0001: 1, S0420: 1, H0729: 1, H0722: 1, H0619: 1, H0333: 1, H0318: 1, H0007: 1, H0052: 1, H0009: 1, L0163: 1, H0051: 1, H0428: 1, H0181: 1, S0364: 1, H0708: 1, H0135: 1, H0413: 1, S0440: 1, L5575: 1, L0764: 1, L0375: 1, L0378: 1, L0652: 1, L0438: 1, S0126: 1, H0658: 1, H0539: 1, L0740: 1, L0749: 1, L0779: 1, L0752: 1 and	

HAOSU85	HAOSU85R	1016	2 - 508	3191		L0758: 1.
HAOSW92	HAOSW92R	1017	93 - 317	3192	His-1 to Phe-7, Pro-16 to His-26, Asp-44 to Ser-52.	H0686: 2, L0362: 2, H0100: 1, H0646: 1 and L0766: 1.
						L0766: 1.
						L0777: 8, L0754: 6, L0662: 4, L0766: 4, S0136: 3, S0406: 2, L0744: 2, L0780: 2, L0752: 2, L0594: 2, H0556: 1, H0686: 1, S0418: 1, S0376: 1, S0360: 1, H0580: 1, H0587: 1, H0486: 1, S0280: 1, L0021: 1, L0105: 1, H0428: 1, L0055: 1, H0212: 1, H0040: 1, S0422: 1, L0639: 1, L5575: 1, L0772: 1, L0372: 1, L0764: 1, L0794: 1, L0522: 1, L0803: 1, L0659: 1, L0529: 1, L0665: 1, H0144: 1, H0547: 1, H0519: 1, H0684: 1, H0659: 1, H0670: 1, L0748: 1, L0756: 1, L0757: 1, L0758: 1, L0759: 1, L0596: 1, L0589: 1, L0605: 1, L0599: 1,

| HAOTB47 | HAOTB47R | 1018 | 3 - 107 | | | H0667: 1, H0542: 1 and H0506: 1. |
| HAOTB58 | HAOTB58R | 1019 | 336 - 485 | 3193 | 3194 | Ile-3 to Asp-9. |

For HAOTB58 (3194), the following list is given:

L0756: 6, L0777: 6,
S0408: 5, L0770: 5,
H0547: 5, S0360: 4,
L0665: 4, H0624: 3,
H0687: 3, H0170: 2,
H0686: 2, L0717: 2,
H0497: 2, L0163: 2,
L0794: 2, L0766: 2,
S0126: 2, L0752: 2,
L0731: 2, H0657: 1,
H0656: 1, L0808: 1,
H0341: 1, S0282: 1,
S0442: 1, S0354: 1,
S0045: 1, S0222: 1,
H0486: 1, L0586: 1,
H0156: 1, H0575: 1,
H0318: 1, H0581: 1,
H0052: 1, L0738: 1,
H0266: 1, H0553: 1,
H0169: 1, S0036: 1,
H0087: 1, H0413: 1,
S0422: 1, L0598: 1,
L0520: 1, L0763: 1,
L0638: 1, L0764: 1,
L0803: 1, L0776: 1,
L0658: 1, L0659: 1,
L0809: 1, L0789: 1,

HAOTD32	HAOTD32R	1020	209 - 340	3195	L0664: 1, S0374: 1, H0520: 1, H0659: 1, H0670: 1, H0672: 1, H0436: 1, S0028: 1, L0439: 1, H0445: 1, L0589: 1, L0608: 1, S0192: 1, H0543: 1, H0423: 1, S0424: 1 and L0600: 1.	L0747: 28, S0192: 21, L0659: 17, L0740: 12, L0757: 10, S0360: 9, H0545: 9, L0662: 9, L0775: 9, L0665: 9, L0439: 9, L0664: 8, S0358: 7, L0666: 7, L0750: 7, L0601: 7, L0777: 6, L0731: 6, L0471: 5, S0003: 5, H0038: 5, H0547: 5, S0206: 5, L0748: 5, L0756: 5, L0752: 5, L0758: 5, S0011: 5, S0026: 5, T0049: 4, L0717: 4, H0575: 4, H0012: 4, H0620: 4, H0083: 4, H0090: 4, L0770: 4, L0764: 4, L0794: 4, L0766: 4, L0804: 4, L0375: 4,

L0806: 4, L0754: 4,
L0779: 4, L0596: 4,
L0588: 4, L0581: 4,
L0603: 4, H0556: 3,
H0431: 3, H0370: 3,
S0010: 3, H0596: 3,
S0388: 3, T0023: 3,
H0031: 3, H0264: 3,
L0564: 3, S0372: 3,
L0769: 3, L0667: 3,
L0521: 3, L0768: 3,
L0774: 3, L0657: 3,
L0783: 3, L0809: 3,
L0663: 3, S0126: 3,
S0122: 3, H0682: 3,
L0759: 3, L0591: 3,
H0352: 3, L0353: 2,
H0686: 2, S0040: 2,
H0295: 2, H0650: 2,
S0045: 2, S0046: 2,
S0132: 2, H0549: 2,
S0222: 2, H0427: 2,
H0156: 2, H0263: 2,
H0597: 2, H0546: 2,
H0046: 2, H0050: 2,
H0024: 2, T0010: 2,
H0375: 2, H0266: 2,
H0271: 2, H0030: 2,
H0553: 2, H0644: 2,
H0674: 2, H0135: 2,

H0591: 2, H0616: 2,
H0412: 2, H0413: 2,
H0059: 2, H0100: 2,
S0002: 2, L0369: 2,
L0520: 2, L0763: 2,
L0637: 2, L0761: 2,
L0372: 2, L0767: 2,
L0649: 2, L0803: 2,
L0776: 2, L0382: 2,
L0565: 2, H0690: 2,
H0659: 2, H0670: 2,
H0660: 2, H0648: 2,
H0672: 2, S0404: 2,
S0406: 2, H0555: 2,
H0478: 2, H0626: 2,
H0627: 2, L0070: 2,
S3014: 2, S0032: 2,
L0741: 2, L0590: 2,
L0592: 2, L0599: 2,
L0593: 2, L0595: 2,
H0543: 2, L0600: 2,
H0170: 1, H0171: 1,
H0265: 1, T0002: 1,
H0140: 1, S0470: 1,
H0294: 1, L0785: 1,
S0212: 1, S0282: 1,
H0484: 1, H0671: 1,
H0663: 1, H0664: 1,
H0662: 1, H0638: 1,
L0005: 1, S0442: 1,

S0444: 1, H0676: 1, H0208: 1, H0619: 1, H0393: 1, S6022: 1, H0369: 1, H0550: 1, H0455: 1, H0587: 1, H0333: 1, H0331: 1, H0574: 1, H0559: 1, T0039: 1, H0013: 1, S0280: 1, H0097: 1, H0042: 1, T0082: 1, S0474: 1, H0581: 1, S0049: 1, H0251: 1, H0309: 1, H0235: 1, H0011: 1, H0051: 1, H0021: 1, H0510: 1, H0594: 1, S0334: 1, H0687: 1, S0250: 1, S0214: 1, H0119: 1, T0006: 1, H0628: 1, H0617: 1, L0055: 1, H0032: 1, H0169: 1, H0124: 1, H0598: 1, H0551: 1, T0067: 1, H0128: 1, L0475: 1, H0560: 1, H0561: 1, S0352: 1, S0438: 1, S0440: 1, H0132: 1, H0641: 1, H0647: 1, H0646: 1, S0344: 1, S0426: 1, L0598: 1,

HAOTE06	HAOTE06R	1021	2 - 472	3196	
					H0529: 1, L0762: 1, L0646: 1, L0800: 1, L0771: 1, L0773: 1, L0388: 1, L0650: 1, L0378: 1, L0805: 1, L0653: 1, L0527: 1, L0558: 1, L0636: 1, L0526: 1, L0647: 1, L0367: 1, L0787: 1, L0788: 1, H0144: 1, H0691: 1, H0520: 1, H0519: 1, H0365: 1, H0435: 1, H0658: 1, S0380: 1, H0521: 1, H0696: 1, S0044: 1, H0436: 1, S3012: 1, L0786: 1, L0780: 1, L0755: 1, S0260: 1, H0444: 1, H0343: 1, H0595: 1, S0436: 1, L0480: 1, L0605: 1, L0608: 1, L0362: 1, L0366: 1 and S0196: 1.
					L0803: 9, L0794: 8, L0740: 5, L0748: 4, L0439: 4, L0747: 4, L0438: 3, L0779: 3, L0758: 3, H0553: 2, L0646: 2, L0800: 2, L0804: 2, L0809: 2,

HAOTF84	HAOTF84R	1022	68 - 208	3197	Lys-15 to Gln-22.	L0757: 13, L0731: 10, L0754: 7, L0770: 4, S0360: 3, H0553: 3, H0551: 3, L0769: 3, L0662: 3, L0659: 3,
						L0665: 2, H0670: 2, L0755: 2, L0608: 2, S0026: 2, H0170: 1, H0686: 1, H0717: 1, H0656: 1, S0444: 1, H0580: 1, H0156: 1, H0178: 1, H0014: 1, H0252: 1, H0615: 1, H0674: 1, H0090: 1, H0063: 1, L0637: 1, L0372: 1, L0764: 1, L0765: 1, L0662: 1, L0766: 1, L0649: 1, L0650: 1, L0806: 1, L0653: 1, L0657: 1, L0659: 1, L0517: 1, L0529: 1, L5622: 1, L0789: 1, L0790: 1, L0663: 1, L0664: 1, H0144: 1, H0723: 1, S0126: 1, H0659: 1, S0378: 1, S0152: 1, L0741: 1, L0777: 1, S0434: 1, L0594: 1, L0595: 1 and H0667: 1.

L0747: 3, L0779: 3, L0777: 3, L0755: 3, H0686: 2, S0420: 2, H0545: 2, L0471: 2, H0673: 2, L0598: 2, L0646: 2, L0794: 2, L0806: 2, H0520: 2, S0330: 2, H0436: 2, L0740: 2, L0751: 2, L0756: 2, L0599: 2, S0011: 2, S0242: 2, H0170: 1, L0002: 1, L0808: 1, S0418: 1, S0444: 1, L0717: 1, H0587: 1, H0497: 1, H0333: 1, H0632: 1, T0039: 1, H0013: 1, H0250: 1, L0021: 1, H0052: 1, S0051: 1, H0188: 1, S0003: 1, S0022: 1, S0214: 1, H0428: 1, H0031: 1, H0628: 1, S0438: 1, S0440: 1, H0647: 1, L0763: 1, L0764: 1, L0771: 1, L0648: 1, L0649: 1, L0651: 1, L0805: 1, L0652: 1, L0655: 1, L0606: 1, L0634: 1, L0542: 1,

HAOTF90	HAOTF90R	1023	3 - 176	3198	L0783: 1, L0809: 1, L0787: 1, L0666: 1, L0663: 1, H0144: 1, H0701: 1, S0374: 1, L0565: 1, H0547: 1, S0126: 1, H0682: 1, H0435: 1, H0659: 1, H0648: 1, H0539: 1, S0378: 1, S0406: 1, H0626: 1, S3012: 1, L0748: 1, L0749: 1, L0758: 1, L0759: 1, L0588: 1, L0589: 1, L0592: 1, L0593: 1, L0594: 1, H0653: 1, S0192: 1, S0194: 1 and H0352: 1.	L0439: 5, S0026: 5, H0624: 4, H0413: 4, S0418: 3, H0580: 3, H0373: 3, H0038: 3, H0494: 3, H0144: 3, H0686: 2, S0358: 2, H0261: 2, S0222: 2, H0013: 2, H0581: 2, H0052: 2, H0545: 2, H0031: 2, H0529: 2, L0664: 2, S0027: 2, L0747: 2, L0777: 2, L0752: 2, L0755: 2,

H0170: 1, S6024: 1,
S0134: 1, H0483: 1,
H0664: 1, H0449: 1,
H0458: 1, H0125: 1,
L0005: 1, S0045: 1,
S0132: 1, H0393: 1,
H0497: 1, H0485: 1,
H0486: 1, T0060: 1,
H0575: 1, H0122: 1,
H0036: 1, S0010: 1,
H0505: 1, S0049: 1,
H0196: 1, H0046: 1,
H0569: 1, H0123: 1,
L0471: 1, H0024: 1,
T0010: 1, H0266: 1,
S0312: 1, S0314: 1,
S0003: 1, S0214: 1,
H0622: 1, H0553: 1,
H0674: 1, S0364: 1,
S0036: 1, H0379: 1,
H0100: 1, L0370: 1,
T0042: 1, H0641: 1,
H0646: 1, S0144: 1,
S0426: 1, L0638: 1,
L0773: 1, L0775: 1,
L0378: 1, L0776: 1,
L0666: 1, L0438: 1,
H0547: 1, H0519: 1,
H0435: 1, H0539: 1,
H0518: 1, S0152: 1,

| HAOTG75 | HAOTG75R | 1024 | 2 - 328 | 3199 | Glu-1 to Gln-8, Pro-31 to Trp-36. | H0521: 1, H0631: 1, L0740: 1, L0759: 1, S0260: 1, H0445: 1, L0596: 1, L0581: 1, L0604: 1, L0594: 1, H0667: 1 and L0697: 1. L0747: 28, S0192: 21, L0659: 17, L0740: 12, L0757: 10, S0360: 9, H0545: 9, L0662: 9, L0775: 9, L0665: 9, L0439: 9, L0664: 8, S0358: 7, L0666: 7, L0750: 7, L0601: 7, L0777: 6, L0731: 6, L0471: 5, S0003: 5, H0038: 5, H0547: 5, S0206: 5, L0748: 5, L0756: 5, L0752: 5, L0758: 5, S0011: 5, S0026: 5, T0049: 4, L0717: 4, H0575: 4, H0012: 4, H0620: 4, H0083: 4, H0090: 4, L0770: 4, L0764: 4, L0794: 4, L0766: 4, L0804: 4, L0375: 4, L0806: 4, L0754: 4, L0779: 4, L0596: 4, L0588: 4, L0581: 4, |

L0603: 4, H0556: 3,
H0431: 3, H0370: 3,
S0010: 3, H0596: 3,
S0388: 3, T0023: 3,
H0031: 3, H0264: 3,
L0564: 3, S0372: 3,
L0769: 3, L0667: 3,
L0521: 3, L0768: 3,
L0774: 3, L0657: 3,
L0783: 3, L0809: 3,
L0663: 3, S0126: 3,
S0122: 3, H0682: 3,
L0759: 3, L0591: 3,
H0352: 3, L0353: 2,
H0686: 2, S0040: 2,
H0295: 2, H0650: 2,
S0045: 2, S0046: 2,
S0132: 2, H0549: 2,
S0222: 2, H0427: 2,
H0156: 2, H0263: 2,
H0597: 2, H0546: 2,
H0046: 2, H0050: 2,
H0024: 2, T0010: 2,
H0375: 2, H0266: 2,
H0271: 2, H0030: 2,
H0553: 2, H0644: 2,
H0674: 2, H0135: 2,
H0591: 2, H0616: 2,
H0412: 2, H0413: 2,
H0059: 2, H0100: 2,

S0002: 2, L0369: 2, L0520: 2, L0763: 2, L0637: 2, L0761: 2, L0372: 2, L0767: 2, L0649: 2, L0803: 2, L0776: 2, L0382: 2, L0565: 2, H0690: 2, H0659: 2, H0670: 2, H0660: 2, H0648: 2, H0672: 2, S0404: 2, S0406: 2, H0555: 2, H0478: 2, H0626: 2, H0627: 2, L0070: 2, S3014: 2, S0032: 2, L0741: 2, L0590: 2, L0592: 2, L0599: 2, L0593: 2, L0595: 2, H0543: 2, L0600: 2, H0170: 1, H0171: 1, H0265: 1, T0002: 1, H0140: 1, S0470: 1, H0294: 1, L0785: 1, S0212: 1, S0282: 1, H0484: 1, H0671: 1, H0663: 1, H0664: 1, H0662: 1, H0638: 1, L0005: 1, S0442: 1, S0444: 1, H0676: 1, H0208: 1, H0619: 1, H0393: 1, S6022: 1,

H0369: 1, H0550: 1, H0455: 1, H0587: 1, H0333: 1, H0331: 1, H0574: 1, H0559: 1, T0039: 1, H0013: 1, S0280: 1, H0097: 1, H0042: 1, T0082: 1, S0474: 1, H0581: 1, S0049: 1, H0251: 1, H0309: 1, H0235: 1, H0011: 1, H0051: 1, H0021: 1, H0510: 1, H0594: 1, S0334: 1, H0687: 1, S0250: 1, S0214: 1, H0119: 1, T0006: 1, H0628: 1, H0617: 1, L0055: 1, H0032: 1, H0169: 1, H0124: 1, H0598: 1, H0551: 1, T0067: 1, H0128: 1, L0475: 1, H0560: 1, H0561: 1, S0352: 1, S0438: 1, S0440: 1, H0132: 1, H0641: 1, H0647: 1, H0646: 1, S0344: 1, S0426: 1, L0598: 1, H0529: 1, L0762: 1, L0646: 1, L0800: 1, L0771: 1, L0773: 1,

HAOTH28	HAOTH28R	1025	33 - 164	3200		L0388: 1, L0650: 1, L0378: 1, L0805: 1, L0653: 1, L0527: 1, L0558: 1, L0636: 1, L0526: 1, L0647: 1, L0367: 1, L0787: 1, L0788: 1, H0144: 1, H0691: 1, H0520: 1, H0519: 1, H0365: 1, H0435: 1, H0658: 1, S0380: 1, H0521: 1, H0696: 1, S0044: 1, H0436: 1, S3012: 1, L0786: 1, L0780: 1, L0755: 1, S0260: 1, H0444: 1, H0343: 1, H0595: 1, S0436: 1, L0480: 1, L0605: 1, L0608: 1, L0362: 1, L0366: 1 and S0196: 1.
HAOTI07	HAOTI07R	1026	3 - 398	3201	Pro-1 to Arg-6, Met-12 to Ser-21.	
HAOTT79	HAOTT79R	1027	3 - 392	3202		
HAOTU79	HAOTU79R	1028	15 - 455	3203		
HAOTW22	HAOTW22R	1029	1 - 201	3204	Ser-35 to Ser-41, Ile-50 to Gly-55.	
HAOTW30	HAOTW30R	1030	376 - 564	3205	Arg-1 to Gly-7.	
HAOTW65	HAOTW65R	1031	113 - 475	3206		H0686: 2 and S0358: 1.

HAPNK45	HAPNK45R	1032	68 - 232	3207	
HAPPR43	HAPPR43R	1033	200 - 313	3208	Lys-1 to Ser-6, Ala-26 to Thr-31.
HAPQO14	HAPQO14R	1034	5 - 193	3209	Ser-1 to Pro-11.
HAQML40	HAQML40R	1035	1 - 258	3210	
HASME85	HASME85R	1036	208 - 396	3211	
HAUAK54	HAUAK54R	1037	3 - 299	3212	
HAVMB46	HAVMB46R	1038	84 - 203	3213	Ser-13 to Arg-19, Ile-28 to Asn-33.
HAVMW69	HAVMW69R	1039	3 - 116	3214	L0439: 2, L0755: 2, S0412: 2, H0170: 1, H0497: 1, H0591: 1, H0038: 1, L0641: 1, L0774: 1, L0651: 1, L0776: 1, L4501: 1, L0666: 1, L0663: 1, H0144: 1, L0438: 1, S0126: 1, H0659: 1, H0648: 1, L0602: 1, L0748: 1, L0749: 1, L0750: 1, L0756: 1, L0752: 1, L0759: 1, L0599: 1 and L0362: 1.
HAVNQ92	HAVNQ92RA	1040	1 - 165	3215	Ala-19 to Arg-24.
HAVOJ11	HAVOJ11R	1041	108 - 239	3216	Gly-1 to Thr-12, Glu-23 to Lys-38.
HAZAC68	HAZAC68R	1042	3 - 587	3217	Ser-119 to Lys-124.
HAZAD13	HAZAD13R	1043	2 - 517	3218	Lys-32 to Arg-40,

HAZAD40	HAZAD40R	1044	191 - 445	3219	Ser-54 to Gly-59, Glu-133 to Ala-147, Gln-153 to Gln-164.	S0360: 1, H0486: 1, L0761: 1, L0803: 1, L0774: 1, L0666: 1, L0663: 1, L0665: 1, H0520: 1, H0690: 1, H0435: 1 and L0747: 1.
HAZAE44	HAZAE44R	1045	3 - 512	3220	Val-9 to Gly-24.	
HAZAG23	HAZAG23R	1046	2 - 466	3221	Gln-12 to Thr-20, Cys-39 to Asn-45, Thr-60 to Gly-66, Lys-99 to Asp-106, Asp-119 to Pro-127.	H0424: 16, S0380: 13, L0748: 13, L0750: 12, S0440: 10, S0444: 9, L0755: 9, L0758: 9, S0192: 9, H0484: 8, S0358: 8, H0545: 8, L0809: 8, L0747: 8, L0749: 8, S0360: 7, S0406: 7, S0410: 7, L0752: 7, L0766: 6, S0374: 6, L0751: 6, L0754: 6, H0423: 6, S0442: 5, H0672: 5, S0378: 5, S0404: 5, L0759: 5, H0556: 4, S0356: 4, S0376: 4, H0546: 4, H0150: 4, S0438: 4, L0775: 4, L0776: 4, L0518: 4, S0328: 4, L0740: 4,

S0434: 4, L0599: 4, H0422: 4, H0685: 3, S0116: 3, H0483: 3, H0638: 3, H0486: 3, H0318: 3, H0309: 3, H0597: 3, H0617: 3, H0494: 3, S0144: 3, L0771: 3, L0767: 3, L0768: 3, L0794: 3, L0774: 3, L0806: 3, L0783: 3, L0528: 3, H0593: 3, S0126: 3, H0690: 3, H0658: 3, H0670: 3, S0330: 3, H0696: 3, S0028: 3, L0742: 3, L0439: 3, L0731: 3, L0757: 3, H0543: 3, H0149: 2, S0218: 2, H0341: 2, H0306: 2, H0402: 2, S0420: 2, H0722: 2, S0476: 2, H0392: 2, H0333: 2, H0101: 2, H0581: 2, H0421: 2, H0204: 2, H0231: 2, H0009: 2, H0023: 2, H0024: 2, H0271: 2, H0031: 2, H0644: 2, H0166: 2, H0124: 2, H0068: 2, H0616: 2,

H0059: 2, H0560: 2, H0509: 2, S0344: 2, S0422: 2, L0769: 2, L0764: 2, L0765: 2, L0651: 2, L0657: 2, H0689: 2, H0684: 2, H0659: 2, H0660: 2, H0648: 2, H0521: 2, S0044: 2, S0392: 2, L0743: 2, S0436: 2, L0588: 2, L0590: 2, H0542: 2, S0446: 2, L0600: 2, H0008: 2, H0624: 1, H0170: 1, H0171: 1, S0040: 1, S6024: 1, H0295: 1, H0294: 1, S0114: 1, H0657: 1, H0656: 1, L0760: 1, S0212: 1, H0255: 1, H0663: 1, S0418: 1, S0354: 1, H0676: 1, S0408: 1, T0008: 1, H0637: 1, H0730: 1, H0393: 1, S0278: 1, H0369: 1, S0222: 1, H0370: 1, H0330: 1, H0592: 1, H0586: 1, H0574: 1, L0622: 1, H0013: 1, H0427: 1, S0280: 1,

H0156: 1, H0575: 1,
H0004: 1, H0274: 1,
H0253: 1, T0048: 1,
S0474: 1, H0085: 1,
H0596: 1, H0544: 1,
H0086: 1, H0123: 1,
L0471: 1, H0012: 1,
H0620: 1, H0057: 1,
T0010: 1, H0375: 1,
H0594: 1, H0179: 1,
H0188: 1, H0687: 1,
H0284: 1, H0252: 1,
T0023: 1, S0368: 1,
T0006: 1, H0604: 1,
H0213: 1, H0553: 1,
L0055: 1, H0032: 1,
H0673: 1, H0674: 1,
S0366: 1, S0036: 1,
H0163: 1, H0038: 1,
H0634: 1, H0087: 1,
T0067: 1, H0264: 1,
T0041: 1, H0625: 1,
H0561: 1, S0466: 1,
H0131: 1, S0150: 1,
H0633: 1, S0472: 1,
H0529: 1, L0762: 1,
L0763: 1, L0770: 1,
L3905: 1, L0761: 1,
L0772: 1, L0372: 1,
L0646: 1, L0374: 1,

HAZAG92	HAZAG92R	1047	282 - 467	3222	Pro-48 to Gly-59.	L0521: 1, L0662: 1, L0364: 1, L5564: 1, L0378: 1, L0655: 1, L0379: 1, L0656: 1, L0659: 1, L0540: 1, L0526: 1, L0384: 1, L0544: 1, L0541: 1, L0789: 1, L0793: 1, L0666: 1, L0664: 1, L0665: 1, H0726: 1, H0547: 1, H0683: 1, H0651: 1, H0539: 1, H0518: 1, S0350: 1, H0555: 1, H0576: 1, H0627: 1, S3014: 1, S0027: 1, S0032: 1, L0756: 1, L0786: 1, L0777: 1, L0753: 1, H0445: 1, L0591: 1, L0592: 1, L0608: 1 and L0603: 1.
HAZAH79	HAZAH79R	1048	138 - 515	3223	Gly-2 to Ser-9, Pro-46 to Cys-60, Pro-62 to His-69, Pro-81 to Thr-91, Ala-96 to Ser-101.	
HAZAI23	HAZAI23R	1049	1 - 165	3224	Lys-11 to Ser-16, Arg-20 to Glu-28.	L0747: 21, L0748: 18, L0750: 15, S0408: 11, L0771: 10, L0775: 9.

L0742: 8, S0410: 6,
L0756: 6, L0752: 6,
L0758: 6, L0731: 5,
H0341: 4, L0766: 4,
L0803: 4, L0776: 4,
S0126: 4, H0170: 3,
H0486: 3, S0346: 3,
H0204: 3, H0545: 3,
L0471: 3, S0440: 3,
L0769: 3, L0772: 3,
L0804: 3, H0214: 3,
S0404: 3, L0744: 3,
L0754: 3, L0757: 3,
H0506: 3, H0171: 2,
H0685: 2, S0420: 2,
S0356: 2, S0358: 2,
S0045: 2, H0587: 2,
H0069: 2, L0021: 2,
H0575: 2, T0048: 2,
H0318: 2, H0581: 2,
H0597: 2, H0009: 2,
H0014: 2, H0510: 2,
H0622: 2, H0031: 2,
S0364: 2, H0591: 2,
H0056: 2, H0494: 2,
S0438: 2, L0770: 2,
L0761: 2, L0521: 2,
L0649: 2, L0650: 2,
L0526: 2, L0792: 2,
L0666: 2, L0665: 2,

H0690: 2, H0522: 2,
H0134: 2, L0743: 2,
L0740: 2, L0759: 2,
L0587: 2, H0422: 2,
H0624: 1, T0002: 1,
H0294: 1, H0657: 1,
H0484: 1, H0255: 1,
H0661: 1, H0664: 1,
H0176: 1, H0402: 1,
S0442: 1, S0376: 1,
H0637: 1, S0046: 1,
S0476: 1, H0393: 1,
L0717: 1, H0351: 1,
S0278: 1, S0222: 1,
H0392: 1, H0438: 1,
H0331: 1, L0622: 1,
H0635: 1, S0182: 1,
S0474: 1, H0173: 1,
H0052: 1, H0596: 1,
H0327: 1, H0546: 1,
H0150: 1, H0565: 1,
H0123: 1, H0081: 1,
H0051: 1, S0051: 1,
H0083: 1, H0594: 1,
H0028: 1, S0214: 1,
H0252: 1, H0428: 1,
H0213: 1, H0644: 1,
H0617: 1, H0163: 1,
H0090: 1, H0616: 1,
H0087: 1, H0488: 1,

HAZAI87	HAZAI87R	1050	264 - 428	3225	Phe-34 to Lys-41.	H0413: 1, T0069: 1, S0038: 1, T0041: 1, T0042: 1, H0512: 1, H0560: 1, H0646: 1, S0344: 1, S0422: 1, H0529: 1, L0520: 1, L0763: 1, L0646: 1, L0764: 1, L0773: 1, L0768: 1, L0522: 1, L0774: 1, L0784: 1, L0806: 1, L0805: 1, L0653: 1, L0655: 1, L0379: 1, L0807: 1, L0659: 1, L0517: 1, L0783: 1, L0519: 1, L0789: 1, L0791: 1, L0664: 1, S0053: 1, H0683: 1, H0659: 1, H0658: 1, S0328: 1, H0710: 1, H0696: 1, S0406: 1, L0751: 1, L0749: 1, L0786: 1, L0780: 1, L0753: 1, L0755: 1, S0260: 1, L0366: 1, H0653: 1, H0667: 1, H0542: 1, H0543: 1 and H0712: 1. L0659: 6, L0662: 5, S0212: 4, S0003: 4, H0551: 4, S0192: 4,

S0376: 3, S0440: 3,
S0374: 3, H0521: 3,
S0040: 2, S0418: 2,
S0444: 2, H0580: 2,
H0486: 2, H0575: 2,
L0471: 2, H0024: 2,
H0553: 2, L0637: 2,
S0126: 2, S0406: 2,
S0028: 2, L0748: 2,
L0754: 2, L0757: 2,
S0434: 2, L0590: 2,
S0242: 2, H0686: 1,
H0685: 1, H0664: 1,
S0420: 1, L0005: 1,
S0360: 1, S0408: 1,
S0045: 1, S0476: 1,
S0278: 1, H0357: 1,
H0586: 1, T0039: 1,
H0635: 1, H0427: 1,
L0022: 1, H0004: 1,
H0505: 1, S0049: 1,
H0251: 1, H0263: 1,
T0003: 1, H0373: 1,
H0051: 1, H0356: 1,
H0622: 1, H0644: 1,
H0090: 1, H0412: 1,
H0623: 1, H0560: 1,
H0641: 1, H0633: 1,
S0142: 1, S0208: 1,
L0773: 1, L0521: 1,

HAZAI89	HAZAI89R	1051	3 - 260	3226	Ser-54 to Ser-60, Ile-69 to Gly-74.	L0649: 1, L0803: 1, L0775: 1, L0528: 1, L0663: 1, L0664: 1, H0144: 1, L0565: 1, H0693: 1, H0520: 1, H0547: 1, H0689: 1, H0690: 1, H0435: 1, H0659: 1, H0658: 1, H0670: 1, H0660: 1, S0152: 1, H0555: 1, H0436: 1, S0432: 1, S0390: 1, S3014: 1, L0439: 1, L0758: 1, L0686: 1, S0436: 1, L0588: 1, S0196: 1, L0698: 1 and H0293: 1.
HAZAJ72	HAZAJ72R	1052	1 - 612	3227	Ala-17 to Asp-36, Thr-56 to Met-61.	S0420: 2, H0575: 2, S0418: 1, L0005: 1, S0356: 1, H0619: 1, H0097: 1, H0581: 1, H0012: 1, H0373: 1, H0266: 1, S0250: 1, T0042: 1, H0625: 1, H0561: 1, S0438: 1, S0150: 1, H0641: 1, S0210: 1, H0693: 1, H0519: 1, H0690: 1, L0748: 1 and H0653: 1.

HAZAQ80	HAZAQ80R	1053	27 - 389	3228	Thr-41 to Lys-46, Thr-53 to Gly-59, Ala-77 to Asp-84.	
HAZAW22	HAZAW22R	1054	2 - 172	3229	Ser-1 to Leu-14, Glu-39 to Thr-47.	L0748: 31, L0747: 18, L0752: 17, L0758: 17, L0777: 15, L0766: 13, H0014: 9, L0776: 9, L0751: 9, L0740: 7, L0779: 7, L0754: 6, H0040: 5, L0769: 5, S0330: 5, L0439: 5, L0756: 5, L0599: 5, S0356: 4, H0587: 4, H0622: 4, L0783: 4, L0744: 4, L0745: 4, L0749: 4, L0755: 4, S0031: 4, H0624: 3, S0222: 3, H0156: 3, S0010: 3, S0049: 3, S0051: 3, S0003: 3, H0591: 3, H0038: 3, L0763: 3, L0770: 3, L0662: 3, L0551: 3, L0803: 3, L0664: 3, H0144: 3, H0547: 3, H0521: 3, L0757: 3, L0759: 3, L0596: 3, L0608: 3, L0595: 3, S0114: 2, S0116: 2, H0341: 2, S0418: 2,

S0360: 2, H0619: 2, H0393: 2, H0013: 2, H0575: 2, H0318: 2, H0581: 2, H0051: 2, S0388: 2, H0428: 2, T0006: 2, H0673: 2, H0169: 2, H0674: 2, S0036: 2, H0616: 2, H0551: 2, H0268: 2, L0625: 2, L0768: 2, L0649: 2, L0775: 2, L0806: 2, L0805: 2, H0539: 2, L0731: 2, S0260: 2, H0445: 2, S0434: 2, L0605: 2, L0594: 2, H0543: 2, H0170: 1, H0171: 1, H0716: 1, S6024: 1, S0134: 1, S0218: 1, H0583: 1, H0650: 1, H0657: 1, L0785: 1, S0212: 1, S0282: 1, S0035: 1, S0030: 1, H0305: 1, H0638: 1, S0348: 1, S0420: 1, L0005: 1, S0442: 1, H0340: 1, S0476: 1, H0645: 1, S0300: 1, H0411: 1, S0278: 1, H0549: 1, H0431: 1,

H0409: 1, H0331: 1, H0574: 1, H0486: 1, S0346:_1, H0421: 1, H0052: 1, H0251: 1, L0032: 1, H0085: 1, H0545: 1, H0457: 1, L0041: 1, H0050: 1, H0024: 1, H0373: 1, S6028: 1, S0250: 1, H0615: 1, H0688: 1, H0039: 1, S0364: 1, H0361: 1, L0455: 1, H0376: 1, H0135: 1, H0090: 1, H0634: 1, T0004: 1, T0042: 1, S0014: 1, H0560: 1, H0625: 1, S0438: 1, H0509: 1, H0646: 1, H0529: 1, L0637: 1, L5575: 1, L0667: 1, L0646: 1, L0764: 1, L0771: 1, L5574: 1, L0774: 1, L0655: 1, L0527: 1, L0657: 1, L0659: 1, L0809: 1, L0789: 1, L0792: 1, L0793: 1, L0663: 1, L0665: 1, S0053: 1, H0520: 1, H0519: 1, S0126: 1, H0711: 1,

HAZBH84	HAZBH84R	1055	225 - 359	3230	H0690: 1, H0660: 1, S0136: 1, H0522: 1, S0406: 1, H0555: 1, S3012: 1, S0027: 1, S0028: 1, L0743: 1, L0750: 1, L0604: 1, L0361: 1, S0026: 1, H0653: 1, S0192: 1, S0196: 1, H0542: 1, H0423: 1, S0412: 1 and S0424: 1.	S0003: 154, S0214: 41, H0545: 38, L0651: 34, H0546: 17, L0747: 15, L0757: 14, L0731: 10, L0659: 7, L0776: 6, L0749: 6, H0544: 5, S0122: 5, H0365: 5, L0740: 5, S0360: 4, L0771: 4, L0662: 4, L0768: 4, H0150: 3, H0169: 3, L0750: 3, L0779: 3, H0661: 2, S0376: 2, H0163: 2, S0144: 2, L0764: 2, L0766: 2, L0649: 2, L0775: 2, L0653: 2, L0666: 2, S0126: 2, L0754: 2, L0759: 2, H0171: 1, H0419: 1,

HAZBI39	HAZBI39R	1056	56 - 424	3231	Ser-29 to Ile-39, Gly-42 to Trp-48, Lys-82 to Val-92.	H0411: 1, H0357: 1, H0486: 1, L0021: 1, H0309: 1, H0231: 1, L0738: 1, H0099: 1, H0364: 1, H0039: 1, S0366: 1, H0038: 1, S0142: 1, S0002: 1, L0762: 1, L0640: 1, L0763: 1, L0637: 1, L0646: 1, L0773: 1, L0523: 1, L0655: 1, L0379: 1, L0783: 1, L0663: 1, L0664: 1, L0565: 1, S0008: 1, H0690: 1, S0328: 1, H0696: 1, L0755: 1, L0758: 1, H0595: 1 and H0506: 1.
					L0758: 3, H0068: 2, L0749: 2, L0756: 2, L0731: 2, S0026: 2, H0136: 2, S0040: 1, L0005: 1, H0351: 1, H0318: 1, H0052: 1, H0530: 1, H0266: 1, S0003: 1, H0412: 1, T0004: 1, T0042: 1, S0422: 1, H0529: 1, H0517: 1, L0762: 1, L0763: 1, L0770: 1,

HAZBJ69	HAZBJ69R	1057	3 - 323	3232	Gly-1 to Pro-6, Lys-58 to Asn-71.	L0769: 1, L0766: 1, L0775: 1, L0809: 1, H0698: 1, H0690: 1, S0390: 1, S0028: 1, L0742: 1, L0748: 1, L0747: 1, L0779: 1, L0752: 1, L0755: 1, L0759: 1, S0308: 1, H0542: 1, H0543: 1 and H0423: 1.
HBAGS73	HBAGS73R	1058	207 - 371	3233	Pro-15 to Thr-22, Lys-28 to Arg-35.	
HBBBE13	HBBBE13R	1059	2 - 199	3234		
HBCPI58	HBCPI58RA	1060	3 - 245	3235		
HBJAC26	HBJAC26R	1061	267 - 446	3236		L0665: 3, H0318: 2, L0659: 2, S0330: 2, L0439: 2, L0599: 2, H0583: 1, H0038: 1, L0761: 1, L0771: 1, L0387: 1, L0655: 1, L0666: 1, L0779: 1, L0777: 1, L0758: 1 and L0608: 1.
HBJFS85	HBJFS85R	1062	94 - 261	3237	Asn-30 to Ile-35.	
HBJHY72	HBJHY72RP 00B	1063	1 - 297	3238	Gly-1 to Pro-38, Leu-45 to Gly-64.	AR052: 12, AR055: 8, AR053: 8, AR033: 6, AR089: 6, AR061: 6, AR060: 5, AR096: 3,

AR104: 1, AR039: 0
L0794: 5, L0766: 3,
L0759: 3, S0212: 2,
H0318: 2, L0803: 2,
L0804: 2, L0378: 2,
L0665: 2, L0438: 2,
L0439: 2, L0749: 2,
L0591: 2, L0599: 2,
L0362: 2, H0686: 1,
S0342: 1, S0134: 1,
H0656: 1, H0669: 1,
S0358: 1, H0370: 1,
H0069: 1, S0346: 1,
H0251: 1, H0050: 1,
H0373: 1, H0266: 1,
S0022: 1, L0483: 1,
H0553: 1, H0163: 1,
H0090: 1, H0116: 1,
H0509: 1, S0426: 1,
H0529: 1, L0769: 1,
L0638: 1, L0646: 1,
L0648: 1, L0768: 1,
L0381: 1, L0375: 1,
L0653: 1, L0659: 1,
L0782: 1, L0809: 1,
L0793: 1, H0691: 1,
H0435: 1, H0659: 1,
H0648: 1, S0152: 1,
S0390: 1, S0027: 1,
S0028: 1, L0777: 1,

HBJMN13	HBJMN13R	1064	145 - 231	3239	Glu-8 to Asn-13, Arg-16 to Thr-29.	L0731: 1, S0260: 1, L0596: 1, S0192: 1 and S0424: 1.
HBXCG52	HBXCG52R	1065	59 - 547	3240	Lys-23 to Lys-32, Ser-72 to Leu-80, Ser-90 to Gly-95, Leu-98 to His-103, Ser-106 to Gly-113, Ile-121 to Phe-128.	S0280: 1 and S0038: 1.
HBXFO08	HBXFO08R	1066	1 - 126	3241	Leu-2 to Val-10.	
HCACS53	HCACS53RP00A	1067	145 - 543	3242	His-2 to Glu-28, Ala-37 to Gly-45, His-54 to Pro-62, Glu-69 to Thr-77.	
HCHAJ85	HCHAJ85R	1068	171 - 359	3243	Arg-1 to Arg-6, Phe-27 to Arg-32.	
HCHMM71	HCHMM71R	1069	2 - 322	3244		H0651: 9, L0601: 5, H0559: 4, H0494: 4, L0646: 3, H0484: 2, H0255: 2, S0358: 2, H0550: 2, H0309: 2, H0014: 2, H0188: 2, H0617: 2, H0646: 2, L0769: 2, L0644: 2, L0806: 2, H0689: 2, L0750: 2, L0603: 2, H0624: 1, H0171: 1, H0657: 1, H0663: 1,

HCHMW20	HCHMW20R	1070	53 - 319	3245		S0360: 1, H0574: 1, H0257: 1, H0013: 1, H0635: 1, H0098: 1, H0253: 1, H0327: 1, H0545: 1, H0024: 1, H0181: 1, H0359: 1, S0150: 1, L0369: 1, L0771: 1, L0662: 1, L0766: 1, L0803: 1, L0661: 1, S0428: 1, H0670: 1, S0328: 1, L0748: 1, L0439: 1, L0758: 1 and H0543: 1.
HCLBH21	HCLBH21R	1071	3 - 134	3246	Ser-1 to Thr-8, Glu-17 to Ala-32, Arg-39 to Trp-47.	
HCNDT49	HCNDT49R	1072	234 - 443	3247	Gln-17 to Pro-27.	L0439: 8, H0052: 7, L0748: 7, S0440: 5, L0758: 5, H0046: 4, H0038: 4, L0769: 4, S0442: 3, H0013: 3, H0253: 3, T0010: 3, L0774: 3, L0776: 3, H0144: 3, H0521: 3, S0404: 3, L0752: 3, L0731: 3, H0656: 2, S0358: 2, S0360: 2, S0222: 2, H0618: 2, H0620: 2, L0351: 2,

S0422: 2, L0764: 2, L0771: 2, L0783: 2, L0793: 2, H0658: 2, H0666: 2, L0751: 2, L0754: 2, L0745: 2, L0747: 2, L0750: 2, H0624: 1, H0265: 1, H0556: 1, H0686: 1, S0134: 1, S0212: 1, S0001: 1, H0254: 1, H0661: 1, S0354: 1, S0444: 1, S0408: 1, S0300: 1, S0278: 1, H0369: 1, H0370: 1, H0333: 1, H0574: 1, H0486: 1, H0036: 1, H0263: 1, H0597: 1, H0545: 1, H0572: 1, H0024: 1, S0388: 1, S0051: 1, S0250: 1, H0252: 1, H0428: 1, H0039: 1, H0644: 1, L0055: 1, H0674: 1, H0135: 1, H0087: 1, T0067: 1, H0488: 1, H0529: 1, L0763: 1, L0770: 1, L0761: 1, L0374: 1, L0662: 1, L0768: 1, L0766: 1, L0803: 1, L0775: 1,

HCOMA72	HCOMA72R	1073	25 - 273	3248	Arg-1 to Leu-10, Ser-32 to Ala-45, Ala-58 to Gly-68.	L0805: 1, L0653: 1, L0526: 1, L5622: 1, L0666: 1, L0664: 1, L0665: 1, S0053: 1, H0547: 1, H0682: 1, H0435: 1, H0670: 1, H0660: 1, H0648: 1, H0672: 1, S0328: 1, H0539: 1, S0152: 1, H0696: 1, S0044: 1, S0406: 1, H0631: 1, S3014: 1, S0028: 1, L0742: 1, L0749: 1, L0759: 1, S0436: 1, S0011: 1, S0192: 1, H0542: 1, H0423: 1, S0398: 1 and H0506: 1.
HCOMB04	HCOMB04R	1074	32 - 754	3249	Tyr-3 to Gly-10, Glu-19 to Trp-25.	L0747: 15, L0750: 7, L0731: 7, L0588: 6, L0748: 5, L0439: 5, L0759: 5, H0150: 3, S0144: 3, L0666: 3, L0665: 3, L0752: 3, L0758: 3, L0591: 3, S6024: 2, T0049: 2, S0356: 2, H0674: 2, H0413: 2, S0142: 2,

L0770: 2, L0769: 2,
L0774: 2, L0775: 2,
L0657: 2, H0672: 2,
S0328: 2, S0378: 2,
L0605: 2, L0593: 2,
H0624: 1, T0002: 1,
H0638: 1, S0418: 1,
L0005: 1, S0376: 1,
S0444: 1, S0360: 1,
H0675: 1, S0045: 1,
H0393: 1, S0222: 1,
H0441: 1, H0453: 1,
H0333: 1, H0574: 1,
H0486: 1, H0101: 1,
L0021: 1, H0098: 1,
T0010: 1, H0083: 1,
H0266: 1, H0188: 1,
S0003: 1, H0328: 1,
H0615: 1, H0428: 1,
T0006: 1, H0166: 1,
H0598: 1, H0090: 1,
H0063: 1, T0069: 1,
H0509: 1, H0641: 1,
S0002: 1, L0369: 1,
L0372: 1, L0662: 1,
L0794: 1, L0766: 1,
L0803: 1, L0651: 1,
L0655: 1, L0379: 1,
L0656: 1, L0659: 1,
L0782: 1, L0783: 1,

HCOMD38	HCOMD38R	1075	3 - 275	3250	Pro-1 to Pro-9, Ile-43 to Lys-48.	L0788: 1, L0664: 1, L0565: 1, L0438: 1, H0547: 1, S0126: 1, H0435: 1, H0659: 1, H0658: 1, H0670: 1, H0522: 1, H0696: 1, L0740: 1, L0751: 1, L0745: 1, L0755: 1, L0757: 1, H0445: 1, H0343: 1, H0595: 1, L0596: 1, L0581: 1, L0599: 1 and S0192: 1.
HCOMD61	HCOMD61R	1076	1 - 315	3251		
HCOMF10	HCOMF10R	1077	350 - 622	3252	Asn-10 to Val-16.	L0740: 6, L0666: 2, H0547: 2, L0751: 2, L0777: 2, H0483: 1, S0358: 1, S0444: 1, H0038: 1, L0770: 1, L0768: 1, L0774: 1, L0805: 1, L0658: 1, L0789: 1, H0520: 1, H0659: 1, H0670: 1, L0747: 1, L0779: 1 and L0758: 1.
HCOMF52	HCOMF52R	1078	2 - 523	3253	Lys-11 to Thr-16, Arg-18 to Glu-24, Arg-31 to Leu-38, Phe-51 to Glu-56,	L0439: 7, L0748: 5, H0255: 4, H0253: 4, H0012: 3, H0620: 3, H0617: 3, L0783: 3,

| Glu-59 to Glu-67, Thr-102 to Thr-114, Leu-119 to Gln-124. | L0438: 3, H0618: 2, H0046: 2, L0769: 2, L0766: 2, L0532: 2, L0663: 2, H0521: 2, L0750: 2, L0777: 2, L0592: 2, H0543: 2, H0650: 1, S0212: 1, S0001: 1, H0483: 1, H0254: 1, H0638: 1, S0418: 1, S0358: 1, H0580: 1, S0468: 1, H0549: 1, H0559: 1, H0013: 1, S0280: 1, H0318: 1, H0052: 1, H0024: 1, H0252: 1, H0424: 1, H0553: 1, H0644: 1, H0124: 1, H0376: 1, H0135: 1, H0040: 1, H0087: 1, H0488: 1, T0042: 1, H0494: 1, H0509: 1, L0768: 1, L0388: 1, L0657: 1, L0659: 1, L0789: 1, L0352: 1, S0126: 1, H0689: 1, H0658: 1, H0670: 1, H0436: 1, H0478: 1, H0626: 1, L0742: 1, L0780: 1, L0731: 1, H0445: 1, L0608: 1, |

HCOMG28	HCOMG28R	1079	46 - 357	3254	Lys-1 to Arg-8, Asp-20 to Thr-26, Gly-35 to Glu-48, Leu-66 to Arg-72, Phe-83 to Tyr-88.	L0366: 1 and S0276: 1.
HCOMG40	HCOMG40R	1080	29 - 373	3255	Trp-13 to Asp-19, Cys-29 to Gln-34, Ala-41 to Arg-52, Gly-54 to Gln-59, Arg-69 to Tyr-83.	
HCOMG82	HCOMG82R	1081	233 - 436	3256		
HCOMH70	HCOMH70R	1082	21 - 167	3257	Pro-13 to Pro-22.	H0670: 14, S0360: 9, L0657: 5, L0659: 4, L0809: 4, H0696: 4, L0777: 4, S0356: 3, L0764: 3, L0662: 3, S0374: 3, H0637: 2, H0411: 2, H0486: 2, L0762: 2, L0763: 2, L0521: 2, L0768: 2, L0774: 2, L0805: 2, L0666: 2, L0665: 2, H0659: 2, H0672: 2, H0710: 2, S0406: 2, L0744: 2, L0748: 2, H0686: 1, S0040: 1, H0713: 1, H0657: 1, H0662: 1, S0444: 1, S0408: 1, S0410: 1,

HCOMI30	HCOMI30R	1083	42 - 497	3258		H0602: 1, H0643: 1, T0048: 1, H0263: 1, H0596: 1, H0014: 1, H0015: 1, H0594: 1, H0271: 1, H0687: 1, S0003: 1, S0214: 1, H0169: 1, H0674: 1, S0450: 1, H0649: 1, L0640: 1, L0646: 1, L0641: 1, L0773: 1, L0648: 1, L0388: 1, L0784: 1, L0806: 1, L0776: 1, L0655: 1, L0519: 1, L0530: 1, H0547: 1, H0689: 1, H0435: 1, H0648: 1, S0328: 1, S0330: 1, H0555: 1, H0627: 1, S0390: 1, S0028: 1, L0751: 1, L0779: 1, L0731: 1, S0434: 1, L0581: 1, L0362: 1 and H0667: 1.	
HCOMI37	HCOMI37R	1084	244 - 618	3259			
HCOML11	HCOML11R	1085	255 - 605	3260	Lys-1 to Gly-10, Pro-13 to Asn-23.		
HCOMM12	HCOMM12R	1086	138 - 338	3261			L0743: 19, L0731: 13, L0744: 12, L0748: 11, L0666: 9, L0751: 9,

L0664: 8, H0144: 8,
H0333: 7, H0617: 7,
L0769: 7, L0662: 7,
S0022: 6, H0616: 6,
H0087: 6, L0483: 5,
H0181: 5, L0517: 5,
L0519: 5, L0754: 5,
H0677: 5, S0051: 4,
S0344: 4, L0663: 4,
H0658: 4, L0747: 4,
L0750: 4, L0757: 4,
H0295: 3, T0049: 3,
H0255: 3, L0622: 3,
T0039: 3, H0253: 3,
H0545: 3, L0163: 3,
H0594: 3, H0188: 3,
H0673: 3, H0100: 3,
S0142: 3, L0372: 3,
L0775: 3, L0776: 3,
L0657: 3, L0382: 3,
L0665: 3, H0672: 3,
S0027: 3, L0742: 3,
L0752: 3, S0260: 3,
H0445: 3, L0596: 3,
L0588: 3, L0599: 3,
S0420: 2, H0637: 2,
S0045: 2, S0132: 2,
S0300: 2, S0278: 2,
S0222: 2, H0431: 2,
H0392: 2, H0599: 2,

H0575: 2, H0052: 2,
H0309: 2, H0085: 2,
H0597: 2, H0544: 2,
H0428: 2, H0124: 2,
S0036: 2, H0163: 2,
H0038: 2, H0413: 2,
H0529: 2, L0369: 2,
L0763: 2, L0770: 2,
L0638: 2, L0764: 2,
L0771: 2, L0803: 2,
L0804: 2, L0375: 2,
L0655: 2, L0384: 2,
L0809: 2, L0532: 2,
S0374: 2, S0126: 2,
H0670: 2, H0651: 2,
H0521: 2, S0028: 2,
L0740: 2, L0485: 2,
L0362: 2, L0601: 2,
S0192: 2, S0424: 2,
L0600: 2, H0556: 1,
T0002: 1, H0686: 1,
S0040: 1, S0342: 1,
H0294: 1, S0114: 1,
S0134: 1, H0650: 1,
H0657: 1, L0785: 1,
H0341: 1, S0180: 1,
S0212: 1, H0484: 1,
H0483: 1, H0254: 1,
H0671: 1, H0662: 1,
H0402: 1, H0638: 1,

S0418: 1, S0356: 1, T0007: 1, S0358: 1, S0007: 1, H0208: 1, H0441: 1, H0438: 1, H0587: 1, S0005: 1, L0623: 1, L0477: 1, T0114: 1, S0280: 1, L0021: 1, H0590: 1, H0004: 1, H0618: 1, S0010: 1, H0318: 1, S0049: 1, H0251: 1, H0596: 1, T0110: 1, H0327: 1, H0009: 1, H0123: 1, L0471: 1, H0006: 1, H0014: 1, H0051: 1, S0388: 1, H0510: 1, S0334: 1, H0687: 1, T0023: 1, T0006: 1, H0424: 1, H0182: 1, H0606: 1, H0383: 1, H0165: 1, H0166: 1, S0366: 1, H0135: 1, H0090: 1, T0067: 1, H0488: 1, H0412: 1, T0069: 1, S0112: 1, L0564: 1, H0494: 1, S0015: 1, H0561: 1, L0762: 1, L0640: 1, L0637: 1, L0761: 1, L0667: 1,

L0772: 1, L0373: 1, L0646: 1, L0643: 1, L0374: 1, L0765: 1, L0773: 1, L0648: 1, L0521: 1, L0768: 1, L0364: 1, L0533: 1, L0650: 1, L0774: 1, L0376: 1, L0806: 1, L0652: 1, L0653: 1, L0606: 1, L0629: 1, L0659: 1, L0636: 1, L0542: 1, L0526: 1, L0518: 1, L0782: 1, L0783: 1, H0689: 1, H0690: 1, H0682: 1, H0683: 1, H0659: 1, H0660: 1, S0328: 1, S0330: 1, S0380: 1, H0522: 1, S0004: 1, H0555: 1, L0611: 1, S3014: 1, S0206: 1, L0755: 1, L0758: 1, H0444: 1, L0587: 1, L0589: 1, L0605: 1, L0591: 1, L0608: 1, L0361: 1, L0366: 1, H0665: 1, S0242: 1, S0194: 1, H0543: 1, H0423: 1, S0460: 1, S0456: 1 and H0506: 1.

HCOMM55	HCOMM55R	1087	298 - 119	3262	Pro-10 to Leu-20, His-27 to Lys-40.	
HCOMO58	HCOMO58R	1088	1 - 336	3263	Phe-7 to Asp-29, Glu-31 to Lys-38, Thr-46 to Thr-52, Glu-65 to Arg-72.	
HCOMW52	HCOMW52R P00B	1089	3 - 443	3264		
HCOMX77	HCOMX77R	1090	166 - 492	3265		
HCONC18	HCONC18RP 00B	1091	3 - 161	3266		
HCONH28	HCONH28R	1092	76 - 267	3267		L0754: 3, H0624: 2, S0354: 2, H0124: 2, L0766: 2, L0751: 2, L0759: 2, S0116: 1, H0661: 1, H0098: 1, H0597: 1, L0157: 1, S0250: 1, S0003: 1, H0622: 1, H0553: 1, H0509: 1, L0521: 1, L0662: 1, L0768: 1, L0803: 1, L0657: 1, L0659: 1, L0666: 1, L0663: 1, H0144: 1, S0126: 1, H0670: 1, L0779: 1, L0777: 1, L0755: 1, L0589: 1 and L0362: 1.
HCONK56	HCONK56R	1093	8 - 718	3268		
HCONK75	HCONK75R	1094	33 - 398	3269		

HCONL49	HCONL49R	1095	3 - 221	3270		
HCONL59	HCONL59R	1096	255 - 455	3271	His-23 to Lys-34, Arg-49 to Leu-57, Pro-59 to Ser-66.	L0748: 50, L0754: 42, L0731: 31, H0644: 30, L0747: 29, H0551: 22, S0418: 21, L0659: 17, H0619: 15, L0663: 14, L0666: 13, S0360: 10, H0622: 10, H0031: 10, H0553: 10, L0662: 10, S0126: 10, L0757: 10, L0603: 10, S0420: 8, H0486: 8, H0013: 8, H0050: 8, H0623: 8, L0717: 7, H0144: 7, L0770: 6, L0750: 6, H0427: 5, H0024: 5, H0328: 5, H0030: 5, L0773: 5, L0665: 5, L0749: 5, H0713: 4, T0039: 4, S0280: 4, H0012: 4, H0038: 4, L0794: 4, L0774: 4, L0775: 4, L0805: 4, H0624: 3, H0170: 3, H0171: 3, S0356: 3, H0329: 3, S0046: 3, H0331: 3, H0575: 3, L0471: 3, H0620: 3,

S0250: 3, H0032: 3, H0591: 3, L0598: 3, L0803: 3, L0653: 3, L0657: 3, H0670: 3, S0406: 3, H0555: 3, L0780: 3, L0605: 3, H0667: 3, H0717: 2, T0049: 2, S0212: 2, H0661: 2, S0376: 2, S0007: 2, H0208: 2, S0476: 2, H0645: 2, H0411: 2, H0437: 2, H0550: 2, H0586: 2, H0333: 2, H0599: 2, H0042: 2, H0545: 2, H0123: 2, H0105: 2, H0014: 2, H0051: 2, H0375: 2, L0142: 2, H0598: 2, H0135: 2, H0040: 2, S0372: 2, L0520: 2, L0640: 2, L0769: 2, L5566: 2, L0772: 2, L0646: 2, L0771: 2, L0363: 2, L0768: 2, L0375: 2, L0654: 2, L0776: 2, L0809: 2, L0438: 2, H0547: 2, H0519: 2, L0602: 2, L0743: 2, L0744: 2, L0439: 2,

L0758: 2, L0759: 2,
L0588: 2, L0599: 2,
L0361: 2, H0716: 1,
H0294: 1, S0430: 1,
S0298: 1, S0132: 1,
H0351: 1, H0369: 1,
S0222: 1, H0370: 1,
H0392: 1, H0409: 1,
H0587: 1, H0574: 1,
H0485: 1, T0040: 1,
T0060: 1, H0244: 1,
L0021: 1, H0003: 1,
H0036: 1, H0274: 1,
H0253: 1, H0505: 1,
H0251: 1, H0544: 1,
H0546: 1, H0046: 1,
H0081: 1, H0019: 1,
T0003: 1, H0057: 1,
H0015: 1, H0373: 1,
H0275: 1, H0594: 1,
S0003: 1, H0039: 1,
H0111: 1, H0674: 1,
S0364: 1, S0036: 1,
H0090: 1, H0063: 1,
H0087: 1, H0268: 1,
H0412: 1, H0059: 1,
H0100: 1, L0564: 1,
H0561: 1, S0210: 1,
L0369: 1, L3904: 1,
L0800: 1, L0641: 1,

HCONL67	HCONL67R	1097	389 - 631	3272	Leu-2 to Leu-9.	L0748: 50, L0754: 42, L0731: 31, H0644: 30, L0747: 29, H0551: 22, S0418: 21, L0659: 17, H0619: 15, L0663: 14, L0666: 13, S0360: 10, H0622: 10, H0031: 10, H0553: 10, L0662: 10, S0126: 10, L0757: 10, L0603: 10, S0420: 8,	L0764: 1, L5564: 1, L0804: 1, L0378: 1, L0806: 1, L0807: 1, L0526: 1, L0787: 1, L0788: 1, L0791: 1, L0793: 1, S0374: 1, H0691: 1, T0068: 1, H0690: 1, H0682: 1, H0684: 1, H0658: 1, H0672: 1, H0651: 1, H0518: 1, H0696: 1, S0146: 1, S0037: 1, S3014: 1, S0027: 1, S0028: 1, S0206: 1, S0032: 1, H0445: 1, L0589: 1, L0590: 1, L0485: 1, L0604: 1, H0668: 1, H0653: 1, S0242: 1, S0194: 1 and H0008: 1.

H0486: 8, H0013: 8,
H0050: 8, H0623: 8,
L0717: 7, H0144: 7,
L0770: 6, L0750: 6,
H0427: 5, H0024: 5,
H0328: 5, H0030: 5,
L0773: 5, L0665: 5,
L0749: 5, H0713: 4,
T0039: 4, S0280: 4,
H0012: 4, H0038: 4,
L0794: 4, L0774: 4,
L0775: 4, L0805: 4,
H0624: 3, H0170: 3,
H0171: 3, S0356: 3,
H0329: 3, S0046: 3,
H0331: 3, H0575: 3,
L0471: 3, H0620: 3,
S0250: 3, H0032: 3,
H0591: 3, L0598: 3,
L0803: 3, L0653: 3,
L0657: 3, H0670: 3,
S0406: 3, H0555: 3,
L0780: 3, L0605: 3,
H0667: 3, H0717: 2,
T0049: 2, S0212: 2,
H0661: 2, S0376: 2,
S0007: 2, H0208: 2,
S0476: 2, H0645: 2,
H0411: 2, H0437: 2,
H0550: 2, H0586: 2,

H0333: 2,	H0599: 2,
H0042: 2,	H0545: 2,
H0123: 2,	H0105: 2,
H0014: 2,	H0051: 2,
H0375: 2,	L0142: 2,
H0598: 2,	H0135: 2,
H0040: 2,	S0372: 2,
L0520: 2,	L0640: 2,
L0769: 2,	L5566: 2,
L0772: 2,	L0646: 2,
L0771: 2,	L0363: 2,
L0768: 2,	L0375: 2,
L0654: 2,	L0776: 2,
L0809: 2,	L0438: 2,
H0547: 2,	H0519: 2,
L0602: 2,	L0743: 2,
L0744: 2,	L0439: 2,
L0758: 2,	L0759: 2,
L0588: 2,	L0599: 2,
L0361: 2,	H0716: 1,
H0294: 1,	S0430: 1,
S0298: 1,	S0132: 1,
H0351: 1,	H0369: 1,
S0222: 1,	H0370: 1,
H0392: 1,	H0409: 1,
H0587: 1,	H0574: 1,
H0485: 1,	T0040: 1,
T0060: 1,	H0244: 1,
L0021: 1,	H0003: 1,
H0036: 1,	H0274: 1,

H0253: 1, H0505: 1, H0251: 1, H0544: 1, H0546: 1, H0046: 1, H0081: 1, H0019: 1, T0003: 1, H0057: 1, H0015: 1, H0373: 1, H0275: 1, H0594: 1, S0003: 1, H0039: 1, H0111: 1, H0674: 1, S0364: 1, S0036: 1, H0090: 1, H0063: 1, H0087: 1, H0268: 1, H0412: 1, H0059: 1, H0100: 1, L0564: 1, H0561: 1, S0210: 1, L0369: 1, L3904: 1, L0800: 1, L0641: 1, L0764: 1, L5564: 1, L0804: 1, L0378: 1, L0806: 1, L0807: 1, L0526: 1, L0787: 1, L0788: 1, L0791: 1, L0793: 1, S0374: 1, H0691: 1, T0068: 1, H0690: 1, H0682: 1, H0684: 1, H0658: 1, H0672: 1, H0651: 1, H0518: 1, H0696: 1, S0146: 1, S0037: 1, S3014: 1, S0027: 1,

HCONN92	HCONN92R	1098	205 - 384	3273	S0028: 1, S0206: 1, S0032: 1, H0445: 1, L0589: 1, L0590: 1, L0485: 1, L0604: 1, H0668: 1, H0653: 1, S0242: 1, S0194: 1 and H0008: 1.
HCONO17	HCONO17R	1099	1 - 135	3274	
HCONO25	HCONO25R	1100	218 - 610	3275	L0803: 15, L0766: 7, L0748: 6, L0809: 5, L0749: 5, L0804: 4, L0776: 4, L0754: 4, L0752: 4, L0805: 3, L0755: 3, S0438: 2, L0800: 2, L0662: 2, L0740: 2, L0751: 2, L0747: 2, L0750: 2, L0757: 2, L0615: 1, H0556: 1, S0278: 1, T0039: 1, H0318: 1, H0597: 1, H0009: 1, H0510: 1, H0553: 1, H0063: 1, H0509: 1, H0647: 1, S0144: 1, L0763: 1, L0770: 1, L0764: 1, L0768: 1, L0794: 1, L0775: 1, L0653: 1, L0661: 1, L0518: 1, L0790: 1,

HCONP44	HCONP44R	1101	3 - 413	3276	Val-1 to Ile-10, Met-32 to Asn-42.	H0519: 1, H0659: 1, H0670: 1, S0328: 1, H0696: 1, L0439: 1, L0581: 1, S0242: 1 and S0276: 1.
HCONQ67	HCONQ67R	1102	1 - 669	3277	Gly-7 to Gly-21, Pro-145 to Arg-152, Ala-178 to Lys-183.	
HCONQ71	HCONQ71R	1103	312 - 488	3278		
HCONR31	HCONR31R	1104	3 - 380	3279	Gly-18 to Gln-39, Leu-49 to His-60, Glu-67 to Asp-92.	
HCONU03	HCONU03R	1105	3 - 575	3280		
HCONW62	HCONW62R	1106	1 - 429	3281	Thr-76 to Arg-92, Pro-113 to Ala-118.	
HCONW74	HCONW74R	1107	85 - 234	3282	Pro-15 to Tyr-21.	
HCONW90	HCONW90R	1108	2 - 151	3283	Asn-1 to Pro-10.	
HCONW95	HCONW95R	1109	44 - 457	3284		
HCOOB60	HCOOB60R	1110	101 - 352	3285		
HCOOG32	HCOOG32R	1111	2 - 334	3286		
HCOOG37	HCOOG37R	1112	3 - 482	3287		
HCOOH93	HCOOH93R	1113	1 - 426	3288		
HCOOI71	HCOOI71R	1114	1 - 354	3289	Ala-15 to Gln-25, Gly-42 to Asp-51, Gln-82 to Lys-87, Lys-113 to Lys-118.	
HCOOI79	HCOOI79R	1115	209 - 625	3290		

HCOOM18	HCOOM18R	1116	2 - 694	3291	Lys-71 to Glu-76, Ala-95 to Asp-100, Asp-113 to Ser-134.	
HCOOM73	HCOOM73R	1117	2 - 661	3292	Leu-33 to Lys-39.	H0012: 5, H0620: 4, H0622: 4, L0803: 4, H0670: 4, L0751: 4, L0770: 3, S6024: 2, S0222: 2, L0791: 2, L0731: 2, H0549: 1, H0438: 1, T0023: 1, H0477: 1, H0647: 1, L0648: 1, L0774: 1, L0659: 1, L0664: 1, L0665: 1, H0659: 1, H0658: 1, H0648: 1, H0651: 1, S0380: 1, L0748: 1, L0439: 1, L0756: 1, L0779: 1 and L0755: 1.
HCOOQ46	HCOOQ46R	1118	2 - 166	3293		
HCOOS39	HCOOS39R	1119	2 - 229	3294		
HCOOT43	HCOOT43R	1120	2 - 439	3295		L0743: 19, L0731: 13, L0744: 12, L0748: 11, L0666: 9, L0751: 9, L0664: 8, H0144: 8, H0333: 7, H0617: 7, L0769: 7, L0662: 7, S0022: 6, H0616: 6, H0087: 6, L0483: 5, H0181: 5, L0517: 5,

L0519: 5, L0754: 5, H0677: 5, S0051: 4, S0344: 4, L0663: 4, H0658: 4, L0747: 4, L0750: 4, L0757: 4, H0295: 3, T0049: 3, H0255: 3, L0622: 3, T0039: 3, H0253: 3, H0545: 3, L0163: 3, H0594: 3, H0188: 3, H0673: 3, H0100: 3, S0142: 3, L0372: 3, L0775: 3, L0776: 3, L0657: 3, L0382: 3, L0665: 3, H0672: 3, S0027: 3, L0742: 3, L0752: 3, S0260: 3, H0445: 3, L0596: 3, L0588: 3, L0599: 3, S0420: 2, H0637: 2, S0045: 2, S0132: 2, S0300: 2, S0278: 2, S0222: 2, H0431: 2, H0392: 2, H0599: 2, H0575: 2, H0052: 2, H0309: 2, H0085: 2, H0597: 2, H0544: 2, H0428: 2, H0124: 2, S0036: 2, H0163: 2, H0038: 2, H0413: 2,

H0529: 2, L0369: 2, L0763: 2, L0770: 2, L0638: 2, L0764: 2, L0771: 2, L0803: 2, L0804: 2, L0375: 2, L0655: 2, L0384: 2, L0809: 2, L0532: 2, S0374: 2, S0126: 2, H0670: 2, H0651: 2, H0521: 2, S0028: 2, L0740: 2, L0485: 2, L0362: 2, L0601: 2, S0192: 2, S0424: 2, L0600: 2, H0556: 1, T0002: 1, H0686: 1, S0040: 1, S0342: 1, H0294: 1, S0114: 1, S0134: 1, H0650: 1, H0657: 1, L0785: 1, H0341: 1, S0180: 1, S0212: 1, H0484: 1, H0483: 1, H0254: 1, H0671: 1, H0662: 1, H0402: 1, H0638: 1, S0418: 1, S0356: 1, T0007: 1, S0358: 1, S0007: 1, H0208: 1, H0441: 1, H0438: 1, H0587: 1, S0005: 1, L0623: 1, L0477: 1,

T0114: 1, S0280: 1, L0021: 1, H0590: 1, H0004: 1, H0618: 1, S0010: 1, H0318: 1, S0049: 1, H0251: 1, H0596: 1, T0110: 1, H0327: 1, H0009: 1, H0123: 1, L0471: 1, H0006: 1, H0014: 1, H0051: 1, S0388: 1, H0510: 1, S0334: 1, H0687: 1, T0023: 1, T0006: 1, H0424: 1, H0182: 1, H0606: 1, H0383: 1, H0165: 1, H0166: 1, S0366: 1, H0135: 1, H0090: 1, T0067: 1, H0488: 1, H0412: 1, T0069: 1, S0112: 1, L0564: 1, H0494: 1, S0015: 1, H0561: 1, L0762: 1, L0640: 1, L0637: 1, L0761: 1, L0667: 1, L0772: 1, L0373: 1, L0646: 1, L0643: 1, L0374: 1, L0765: 1, L0773: 1, L0648: 1, L0521: 1, L0768: 1, L0364: 1, L0533: 1,

| HCOOT68 | HCOOT68R | 1121 | 147 - 488 | 3296 | Arg-13 to Val-20. | L0650: 1, L0774: 1, L0376: 1, L0806: 1, L0652: 1, L0653: 1, L0606: 1, L0629: 1, L0659: 1, L0636: 1, L0542: 1, L0526: 1, L0518: 1, L0782: 1, L0783: 1, H0689: 1, H0690: 1, H0682: 1, H0683: 1, H0659: 1, H0660: 1, S0328: 1, S0330: 1, S0380: 1, H0522: 1, S0004: 1, H0555: 1, L0611: 1, S3014: 1, S0206: 1, L0755: 1, L0758: 1, H0444: 1, L0587: 1, L0589: 1, L0605: 1, L0591: 1, L0608: 1, L0361: 1, L0366: 1, H0665: 1, S0242: 1, S0194: 1, H0543: 1, H0423: 1, S0460: 1, S0456: 1 and H0506: 1. | L0748: 20, H0251: 11, L0771: 11, L0740: 11, L0731: 11, L0757: 11, L0752: 10, S0126: 8, H0144: 7, L0596: 6, H0013: 5, L0665: 5, |

L0747: 5, H0542: 5,
H0423: 5, H0624: 4,
T0002: 4, H0486: 4,
H0031: 4, H0169: 4,
H0616: 4, L0770: 4,
L0776: 4, L0666: 4,
S0152: 4, L0754: 4,
H0657: 3, H0663: 3,
S0418: 3, S0358: 3,
S0360: 3, H0038: 3,
L0764: 3, L0648: 3,
L0775: 3, L0655: 3,
L0749: 3, L0750: 3,
L0755: 3, S0026: 3,
H0422: 3, H0170: 2,
H0171: 2, H0341: 2,
H0402: 2, H0638: 2,
S0045: 2, S0046: 2,
H0156: 2, S0182: 2,
H0318: 2, L0471: 2,
S0003: 2, H0168: 2,
H0674: 2, H0090: 2,
H0063: 2, H0412: 2,
H0413: 2, H0100: 2,
S0440: 2, L0769: 2,
L0372: 2, L0662: 2,
L0659: 2, H0547: 2,
H0659: 2, S0328: 2,
S0380: 2, H0521: 2,
L0756: 2, L0758: 2,

L0759: 2, H0445: 2,
L0605: 2, L0604: 2,
L0595: 2, L0362: 2,
S0194: 2, H0543: 2,
S0040: 1, S0134: 1,
H0583: 1, H0656: 1,
S0116: 1, H0484: 1,
H0177: 1, S0420: 1,
L0005: 1, S0354: 1,
S0408: 1, L0717: 1,
H0369: 1, H0550: 1,
S0222: 1, H0574: 1,
H0632: 1, T0060: 1,
H0250: 1, H0108: 1,
H0575: 1, H0037: 1,
T0048: 1, H0309: 1,
H0596: 1, T0115: 1,
H0597: 1, H0327: 1,
H0046: 1, S0051: 1,
H0083: 1, H0061: 1,
S6028: 1, H0288: 1,
H0292: 1, H0039: 1,
H0553: 1, H0644: 1,
H0111: 1, H0032: 1,
H0383: 1, H0316: 1,
H0598: 1, H0087: 1,
H0059: 1, T0042: 1,
H0560: 1, S0438: 1,
H0509: 1, H0132: 1,
H0641: 1, H0633: 1,

HCOOU56	HCOOU56R	1122	3 - 257	3297	S0210: 1, H0529: 1, L0520: 1, L0763: 1, L0637: 1, L0800: 1, L0765: 1, L0773: 1, L0521: 1, L0768: 1, L0364: 1, L0766: 1, L0806: 1, L0653: 1, L0657: 1, L0518: 1, L0783: 1, L0383: 1, L0663: 1, L0664: 1, H0593: 1, H0689: 1, H0682: 1, H0670: 1, H0666: 1, H0648: 1, H0672: 1, L0355: 1, H0522: 1, S0013: 1, H0696: 1, H0134: 1, H0214: 1, S0406: 1, L0609: 1, S3014: 1, S0206: 1, L0744: 1, L0751: 1, H0343: 1, L0591: 1, L0601: 1, S0242: 1, L0697: 1, S0424: 1 and S0446: 1.
HCOOW72	HCOOW72R	1123	58 - 534	3298	Ala-20 to Asp-25, Asp-38 to Ser-59, Asn-103 to Glu-109, Pro-111 to Ser-119.
HCOOX01	HCOOX01R A	1124	153 - 311	3299	

| HCOOX07 | HCOOX07R | 1125 | 236 - 367 | 3300 | His-15 to Gly-29. | L0751: 14, L0659: 11, H0695: 10, L0666: 10, L0757: 9, L0743: 8, L0779: 8, H0581: 6, L0769: 6, L0748: 6, L0758: 6, H0556: 5, H0402: 5, S0360: 5, H0014: 5, H0271: 5, L0761: 5, L0667: 5, L0774: 5, L0653: 5, S0406: 5, H0436: 5, S0358: 4, S0132: 4, L0763: 4, L0776: 4, L0809: 4, L0664: 4, S0126: 4, L0731: 4, S0280: 3, H0150: 3, H0687: 3, L0662: 3, L0775: 3, L0375: 3, H0670: 3, L0749: 3, S0434: 3, H0295: 2, H0650: 2, S0408: 2, H0580: 2, H0411: 2, H0586: 2, H0559: 2, H0545: 2, H0050: 2, S0051: 2, H0083: 2, H0416: 2, H0688: 2, H0617: 2, H0063: 2, H0551: 2, S0344: 2, L0643: 2, L0764: 2, L0766: 2, L0649: 2, |

L0806: 2, L0657: 2,
L0647: 2, L0793: 2,
L0665: 2, S0428: 2,
S0332: 2, L0747: 2,
L0752: 2, H0624: 1,
H0171: 1, H0265: 1,
H0159: 1, H0713: 1,
S0218: 1, H0656: 1,
S0116: 1, H0483: 1,
H0663: 1, H0638: 1,
S0356: 1, S0444: 1,
H0339: 1, S0046: 1,
S0476: 1, S0278: 1,
S6022: 1, H0550: 1,
S0414: 1, L0622: 1,
H0486: 1, H0635: 1,
H0427: 1, H0156: 1,
H0599: 1, H0052: 1,
H0309: 1, H0597: 1,
H0546: 1, L0041: 1,
H0123: 1, H0510: 1,
H0188: 1, T0006: 1,
L0055: 1, H0673: 1,
H0674: 1, H0708: 1,
H0316: 1, H0634: 1,
H0087: 1, H0059: 1,
S0352: 1, S0448: 1,
S0306: 1, L0640: 1,
L0371: 1, L0770: 1,
L0638: 1, L5565: 1,

HCOOX48	HCOOX48R	1126	203 - 349	3301	Leu-13 to Gly-21, Ser-27 to Ser-42.	L0646: 1, L0642: 1, L0645: 1, L0771: 1, L0773: 1, L0648: 1, L0794: 1, L0805: 1, L0652: 1, L0661: 1, L0493: 1, L0635: 1, L0384: 1, L0788: 1, L0663: 1, S0052: 1, S0216: 1, S0374: 1, T0068: 1, H0689: 1, H0682: 1, H0659: 1, H0666: 1, H0672: 1, S0330: 1, H0539: 1, H0710: 1, H0521: 1, H0522: 1, H0696: 1, S0190: 1, S0404: 1, H0555: 1, L0744: 1, L0740: 1, L0756: 1, L0777: 1, L0759: 1, S0031: 1, H0595: 1, L0581: 1, L0361: 1 and S0194: 1.
HCOOY43	HCOOY43R	1127	1 - 315	3302	Asn-67 to Arg-73, Thr-96 to Gly-102.	
HCOPA60	HCOPA60RA	1128	3 - 446	3303	Ala-1 to Leu-7, Gly-14 to Arg-19, Tyr-34 to Asp-41.	L0748: 4, L0747: 4, L0779: 4, H0620: 3, L0770: 3, L0774: 3, L0622: 2, S0280: 2,

| HCOPB03 | HCOPB03R | 1129 | 2 - 598 | 3304 | Asp-28 to Glu-34, Ala-38 to Ile-44, Ala-64 to Arg-77, Gly-82 to Ala-88. | H0271: 2, H0290: 2, L0769: 2, L0800: 2, L0794: 2, L0766: 2, L0775: 2, H0547: 2, S0126: 2, S0380: 2, L0752: 2, L0758: 2, L0596: 2, H0295: 1, S0212: 1, H0125: 1, H0559: 1, T0060: 1, T0082: 1, H0150: 1, N0006: 1, H0024: 1, S0022: 1, H0688: 1, H0428: 1, T0023: 1, H0033: 1, H0424: 1, H0213: 1, H0412: 1, H0413: 1, H0633: 1, S0344: 1, L0646: 1, L0768: 1, L0804: 1, L0656: 1, L0783: 1, L0809: 1, L0788: 1, L0666: 1, L0663: 1, L0438: 1, H0670: 1, H0660: 1, H0522: 1, S0037: 1, L0439: 1, L0750: 1, L0759: 1, S0031: 1 and S0196: 1. |

HCOPC45	HCOPC45R	1130	3 - 89	3305		
HCOPD67	HCOPD67R	1131	26 - 541	3306	Phe-1 to Gly-7.	
HCOPE27	HCOPE27R	1132	2 - 400	3307	Arg-37 to Gly-44, Asp-76 to Gly-87.	L0751: 16, L0601: 10, L0659: 4, H0670: 4, L0665: 3, S0376: 2, H0494: 2, L0758: 2, L0596: 2, H0587: 1, L0646: 1, L0372: 1, L0646: 1, L0662: 1, L0552: 1, L0376: 1, L0806: 1, L0664: 1, H0682: 1, H0435: 1, H0672: 1 and L0744: 1.
HCOPH51	HCOPH51RA	1133	243 - 398	3308		
HCOPI09	HCOPI09RA	1134	2 - 328	3309		
HCOPM42	HCOPM42R	1135	1 - 90	3310		
HCOPO34	HCOPO34R	1136	140 - 361	3311	Thr-6 to Cys-16, Tyr-40 to Lys-47, Ser-61 to Gln-66.	
HCOPO36	HCOPO36R	1137	143 - 601	3312	Arg-1 to Ser-7, Ser-25 to Phe-32, Leu-39 to Ser-44, Arg-58 to Gly-63, Ser-140 to Thr-145.	L0665: 3, H0682: 2, H0435: 2, L0751: 2, H0663: 1, L0021: 1, H0647: 1, L0806: 1, L0664: 1, H0683: 1, H0670: 1 and H0660: 1.
HCOPO88	HCOPO88R	1138	1 - 267	3313	Pro-7 to Phe-15, Gly-26 to Arg-31, Asp-35 to Glu-43.	
HCOPV41	HCOPV41R	1139	3 - 620	3314	Arg-4 to Lys-9,	

HCOPZ15	HCOPZ15R	1140	1 - 582	3315	Asp-61 to Asn-67, Thr-69 to Lys-75, Leu-105 to Ala-112, Gly-126 to His-134, Gly-172 to Glu-179, Pro-186 to Asn-199.	AR096: 11, AR061: 10, AR104: 5, AR060: 5, AR089: 5, AR055: 4, L0774: 3, S0358: 2, H0509: 2, L0809: 2, H0670: 2, L0745: 2, L0779: 2, L0752: 2, H0449: 1, T0048: 1, H0355: 1, H0428: 1, H0617: 1, S0438: 1, H0529: 1, L0770: 1, L0761: 1, L0773: 1, L0803: 1, L0804: 1, L0375: 1, L0659: 1, L0382: 1, L0791: 1, S0328: 1, H0134: 1, L0743: 1, L0748: 1, L0747: 1 and L0756: 1.
HCOQA38	HCOQA38R	1141	41 - 271	3316	His-39 to Asn-45, Cys-68 to Cys-75.	
HCOQA80	HCOQA80R	1142	1 - 192	3317	His-37 to Asp-42.	
HCOQB12	HCOQB12R	1143	1 - 582	3318	Lys-6 to Asp-11, Gly-22 to Phe-27,	

HCOQB56	HCOQB56R	1144	1 - 66	3319	His-54 to Gly-63, Asp-73 to Lys-79.	H0670: 2 and H0589: 1.
HCOQB58	HCOQB58R	1145	281 - 466	3320	Lys-1 to Gln-7.	
HCOQC71	HCOQC71R	1146	3 - 248	3321	Lys-1 to Asp-21, Lys-61 to Leu-71.	L0794: 7, L0803: 5, L0809: 5, L0666: 5, L0751: 5, L0759: 3, H0674: 2, L0768: 2, L0774: 2, L0663: 2, L0779: 2, L0758: 2, S0360: 1, H0455: 1, H0618: 1, H0263: 1, H0169: 1, H0616: 1, H0059: 1, S0112: 1, L0451: 1, L0770: 1, L0639: 1, L0648: 1, L0804: 1, L0776: 1, L0783: 1, L0789: 1, L0790: 1, L0791: 1, L0664: 1, L0665: 1, H0670: 1, H0672: 1 and L0608: 1.
HCOQD29	HCOQD29R	1147	1 - 570	3322	Glu-66 to Arg-72, Pro-148 to Ser-154.	
HCOQD38	HCOQD38R	1148	106 - 639	3323	Met-3 to Ser-16, Cys-25 to Asp-35, Glu-42 to Lys-52, Ser-55 to Glu-63, Glu-74 to Thr-79,	

| HCOQD49 | HCOQD49R | 1149 | 8 - 196 | 3324 | Ile-81 to Ser-102, Ser-109 to Glu-118, Thr-138 to Glu-158. Asp-39 to Ser-46. | S0358: 15, S0003: 13, S0126: 11, L0754: 11, S0410: 10, H0599: 9, S0440: 9, H0529: 9, L0748: 9, H0341: 8, H0373: 8, H0591: 8, L0588: 8, L0362: 8, H0661: 7, S0007: 7, L0471: 7, L0731: 7, H0170: 6, T0042: 6, S0374: 6, H0624: 5, S0408: 5, H0013: 5, H0046: 5, H0031: 5, H0551: 5, H0144: 5, L0752: 5, H0657: 4, S0346: 4, S0214: 4, H0039: 4, H0644: 4, H0616: 4, H0413: 4, H0494: 4, H0670: 4, S0404: 4, S3014: 4, L0740: 4, L0747: 4, L0750: 4, L0753: 4, L0758: 4, L0581: 4, S0424: 4, S0040: 3, H0663: 3, H0638: 3, S0356: 3, S0360: 3, S0222: 3, H0497: 3, |

H0575: 3, H0036: 3,
S0010: 3, H0052: 3,
S0438: 3, H0547: 3,
S0328: 3, S0380: 3,
S0206: 3, L0439: 3,
L0757: 3, L0595: 3,
H0423: 3, S0114: 2,
S0116: 2, S0212: 2,
H0484: 2, H0125: 2,
S0418: 2, S0376: 2,
S0444: 2, H0580: 2,
H0393: 2, H0369: 2,
H0370: 2, H0409: 2,
H0331: 2, H0574: 2,
H0486: 2, H0156: 2,
H0042: 2, H0318: 2,
H0581: 2, H0196: 2,
H0012: 2, L0163: 2,
H0083: 2, H0266: 2,
H0328: 2, H0615: 2,
L0194: 2, L0483: 2,
H0673: 2, H0169: 2,
S0364: 2, H0316: 2,
H0598: 2, S0036: 2,
H0090: 2, T0067: 2,
S0150: 2, S0344: 2,
S0422: 2, S0002: 2,
L0762: 2, L0774: 2,
L0666: 2, L0438: 2,
H0659: 2, H0539: 2,

S0152: 2, H0521: 2, H0696: 2, S3012: 2, L0749: 2, L0756: 2, S0434: 2, L0593: 2, L0594: 2, L0366: 2, H0653: 2, H0543: 2, H0506: 2, H0171: 1, H0685: 1, H0716: 1, T0049: 1, S0134: 1, S0218: 1, H0583: 1, H0254: 1, H0255: 1, H0671: 1, H0664: 1, H0305: 1, L0005: 1, S0468: 1, H0208: 1, S0045: 1, S0046: 1, S6026: 1, H0351: 1, H0411: 1, H0261: 1, H0431: 1, H0455: 1, H0586: 1, H0632: 1, T0039: 1, L0586: 1, H0098: 1, H0120: 1, T0048: 1, S0182: 1, S0049: 1, H0230: 1, H0596: 1, T0115: 1, H0546: 1, H0545: 1, H0009: 1, H0178: 1, H0572: 1, H0123: 1, H0024: 1, H0275: 1, T0010: 1, H0239: 1, H0375: 1, H0288: 1,

H0286: 1, H0070: 1, H0622: 1, T0023: 1, S0368: 1, T0006: 1, H0553: 1, H0628: 1, H0032: 1, H0674: 1, H0124: 1, H0068: 1, H0038: 1, H0634: 1, H0412: 1, H0100: 1, H0560: 1, H0625: 1, H0561: 1, H0132: 1, H0130: 1, H0646: 1, S0142: 1, H0142: 1, H0695: 1, L0369: 1, L0371: 1, L0373: 1, L0764: 1, L0773: 1, L0648: 1, L0521: 1, L0649: 1, L0784: 1, L0776: 1, L0558: 1, L0382: 1, L0787: 1, L0792: 1, L0664: 1, L0665: 1, H0520: 1, H0519: 1, H0593: 1, H0689: 1, H0683: 1, H0684: 1, H0435: 1, H0660: 1, H0648: 1, S0330: 1, H0710: 1, H0522: 1, S0044: 1, S0146: 1, S0406: 1, H0555: 1, H0436: 1, H0447: 1, H0627: 1,

HCOQF77	HCOQF77R	1150	1 - 357	3325		H0444: 1, H0595: 1, L0608: 1, S0011: 1, H0668: 1, S0026: 1, H0136: 1, H0542: 1 and H0422: 1.
HCOQG37	HCOQG37R	1151	3 - 395	3326	Pro-26 to Asn-34, Pro-50 to Pro-56, Arg-64 to Val-69, Val-97 to Lys-103.	
HCOQG47	HCOQG47R	1152	208 - 522	3327		
HCOQH46	HCOQH46R	1153	2 - 583	3328		
HCOQI14	HCOQI14R	1154	11 - 187	3329	Arg-10 to Ser-16.	
HCOQI67	HCOQI67R	1155	1 - 126	3330		L0777: 9, L0766: 5, L0748: 3, L0439: 3, H0599: 2, L0774: 2, L0747: 2, L0749: 2, L0779: 2, L0731: 2, H0305: 1, L0534: 1, H0675: 1, S0046: 1, H0004: 1, H0083: 1, L0456: 1, T0042: 1, S0344: 1, S0002: 1, L0369: 1, L0770: 1, L0773: 1, L0803: 1, L0776: 1, L0809: 1, L0791: 1, H0658: 1, H0670: 1, S3012: 1, L0756: 1, L0780: 1 and L0759: 1.

HCOQJ06	HCOQJ06R	1156	8 - 457	3331			
HCOQJ07	HCOQJ07R	1157	3 - 707	3332			
HCOQJ36	HCOQJ36R	1158	149 - 328	3333		L0752: 4, H0156: 2, L0803: 2, L0776: 2, H0648: 2, L0439: 2, H0431: 1, H0575: 1, H0014: 1, T0023: 1, H0598: 1, H0591: 1, H0059: 1, L0772: 1, L0372: 1, L0764: 1, L0771: 1, L0773: 1, L0804: 1, L0774: 1, L0775: 1, L0375: 1, L0805: 1, L0629: 1, L0789: 1, L0665: 1, L0438: 1, H0658: 1, H0670: 1 and L0779: 1.	
HCOQJ79	HCOQJ79R	1159	1 - 471	3334			
HCOQK86	HCOQK86R	1160	1 - 519	3335			
HCOQL87	HCOQL87R	1161	3 - 398	3336			
HCOQM87	HCOQM87R	1162	3 - 143	3337	Arg-1 to Val-23.		
HCOQO79	HCOQO79R	1163	2 - 613	3338	Phe-94 to Glu-102, Gln-133 to Thr-140.		
HCOQP32	HCOQP32R	1164	3 - 149	3339			
HCOQS11	HCOQS11R	1165	75 - 443	3340			
HCOQU15	HCOQU15R	1166	2 - 430	3341	Asn-29 to Gly-38, Glu-50 to Gln-58.	L0665: 4, L0743: 4, H0486: 3, H0123: 3, H0024: 3, L0528: 3, L0748: 3, H0170: 2,	

HCOQU92	HCOQU92R	1167	46 - 315	3342	Ile-3 to Arg-8, Pro-17 to Ser-22,	H0050: 2, L0769: 2, H0670: 2, L0747: 2, L0750: 2, H0171: 1, H0556: 1, H0583: 1, H0657: 1, S0212: 1, H0208: 1, H0619: 1, S0278: 1, H0550: 1, S0222: 1, H0438: 1, H0613: 1, H0331: 1, H0013: 1, H0635: 1, H0002: 1, S0474: 1, H0581: 1, H0009: 1, L0157: 1, H0012: 1, S0025: 1, H0239: 1, H0375: 1, H0266: 1, H0598: 1, H0135: 1, H0163: 1, H0087: 1, H0551: 1, H0494: 1, S0210: 1, L0640: 1, L0763: 1, L0646: 1, L0387: 1, L0766: 1, L0805: 1, L0776: 1, L0655: 1, L0657: 1, H0144: 1, H0520: 1, H0547: 1, H0519: 1, H0689: 1, H0658: 1, H0576: 1, L0779: 1 and L0759: 1.	L0805: 7, L0776: 4, L0748: 4, H0545: 3,

Ser-28 to Ser-34, Thr-45 to Thr-56, Ser-58 to Thr-63, Tyr-74 to Thr-79.	S0438: 3, H0641: 3, L0588: 3, L0592: 3, T0049: 2, H0549: 2, H0431: 2, H0486: 2, L0471: 2, H0169: 2, S0372: 2, L0520: 2, L0553: 2, L0768: 2, L0649: 2, L0655: 2, L0527: 2, L0783: 2, L0532: 2, H0144: 2, H0682: 2, H0670: 2, S0378: 2, S0406: 2, L0750: 2, S0026: 2, H0542: 2, H0170: 1, H0716: 1, S0212: 1, H0638: 1, H0125: 1, S0444: 1, H0580: 1, H0393: 1, H0411: 1, H0587: 1, L0586: 1, T0114: 1, H0390: 1, T0048: 1, H0318: 1, H0596: 1, H0620: 1, H0375: 1, T0006: 1, H0606: 1, H0429: 1, S0294: 1, H0386: 1, L0770: 1, L0769: 1, L3904: 1, L0374: 1, L0773: 1, L0662: 1, L0766: 1, L0803: 1, L0774: 1, L0526: 1,

| HCOQV27 | HCOQV27R | 1168 | 3 - 239 | 3343 | Glu-1 to Lys-17, Val-25 to Asn-30, Phe-36 to Pro-42. | L0809: 1, L0664: 1, S0053: 1, H0689: 1, H0684: 1, H0659: 1, H0658: 1, H0648: 1, S0330: 1, H0521: 1, H0522: 1, S0404: 1, L0749: 1, L0780: 1, L0731: 1 and H0543: 1. | H0250: 35, L0770: 9, H0635: 6, L0483: 6, L0766: 6, H0521: 6, L0745: 6, S0003: 5, H0623: 5, L0776: 5, H0445: 5, S0408: 4, H0411: 4, H0634: 4, H0641: 4, L0598: 4, H0650: 3, H0656: 3, S0360: 3, H0574: 3, H0486: 3, H0373: 3, H0687: 3, H0591: 3, H0040: 3, L0662: 3, L0775: 3, L0665: 3, S0216: 3, L0748: 3, L0777: 3, S0134: 2, H0663: 2, S0007: 2, H0550: 2, H0013: 2, H0581: 2, H0510: 2, S0214: 2, H0615: 2, H0674: 2, S0440: 2, |

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HCOQX38	HCOQX38R	1169	23 - 439	3344	S0366: 1, H0087: 1, T0067: 1, H0100: 1, S0294: 1, H0633: 1, H0649: 1, S0422: 1, UNKWN: 1, L0667: 1, L0641: 1, L0764: 1, L0794: 1, L0649: 1, L0774: 1, L0784: 1, L0805: 1, L0657: 1, L0659: 1, L0791: 1, L0792: 1, L0664: 1, S0052: 1, S0428: 1, H0699: 1, H0703: 1, H0693: 1, L0438: 1, H0547: 1, H0593: 1, H0659: 1, H0670: 1, H0522: 1, S0013: 1, H0555: 1, H0436: 1, H0576: 1, H0478: 1, S3014: 1, L0740: 1, L0746: 1, L0758: 1, L0588: 1, L0595: 1, L0361: 1, S0026: 1, S0242: 1, S0194: 1 and H0352: 1.	Trp-2 to Gly-7.
HCOQY33	HCOQY33R	1170	1 - 321	3345		
HCOQY43	HCOQY43R	1171	271 - 510	3346	S0282: 1, L0021: 1, S0438: 1, L0775: 1, L0666: 1, L0663: 1,	

HCOQZ02	HCOQZ02R	1172	387 - 473	3347	Lys-1 to Lys-13.	H0659: 1, H0670: 1 and L0758: 1.
HCOQZ86	HCOQZ86R	1173	1 - 507	3348		
HCORA95	HCORA95R	1174	2 - 136	3349.	Pro-1 to Phe-15.	
HCORB20	HCORB20R	1175	14 - 292	3350	Val-1 to Gly-9.	
HCORB43	HCORB43R	1176	1 - 303	3351		
HCORB66	HCORB66R	1177	3 - 611	3352	Asn-1 to Gly-8.	
HCORI18	HCORI18R	1178	105 - 317	3353	Asn-7 to Pro-33, Gly-40 to Gly-46, Tyr-49 to Tyr-71.	L0770: 3, H0685: 1, H0581: 1, H0553: 1, S0150: 1 and H0670: 1.
HCORI25	HCORI25R	1179	3 - 419	3354	Leu-35 to Tyr-40.	L0754: 14, H0052: 13, L0748: 13, H0556: 12, L0591: 12, L0755: 11, L0752: 10, L0731: 9, L0601: 9, L0439: 8, L0777: 8, L0596: 8, H0046: 7, H0521: 7, L0758: 7, H0599: 6, H0622: 6, S0002: 6, L0646: 6, L0593: 6, H0265: 5, S0474: 5, L0776: 5, L0666: 5, L0741: 5, L0747: 5, S0026: 5, H0543: 5, H0619: 4, S0222: 4, H0013: 4, H0590: 4, H0544: 4, H0620: 4, H0124: 4, H0038: 4,

S0386: 4, L0766: 4, L0659: 4, H0547: 4, H0670: 4, S0378: 4, L0740: 4, L0749: 4, L0750: 4, S0434: 4, L0588: 4, L0589: 4, S0040: 3, H0580: 3, S6026: 3, H0486: 3, S0010: 3, S0051: 3, T0010: 3, H0083: 3, H0266: 3, S0250: 3, H0031: 3, H0591: 3, S0142: 3, S0344: 3, H0529: 3, L0770: 3, L0769: 3, L0761: 3, L0662: 3, L0774: 3, L0653: 3, L0663: 3, L0665: 3, L0438: 3, H0435: 3, S0152: 3, H0696: 3, S0342: 2, T0049: 2, H0657: 2, S0212: 2, H0638: 2, S0418: 2, S0354: 2, S0444: 2, S0360: 2, S0046: 2, S0132: 2, S0476: 2, L0717: 2, S0278: 2, H0549: 2, H0438: 2, H0587: 2, H0333: 2, H0427: 2, H0706: 2, H0545: 2,

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						Clone ID list
HCQCR82	HCQCR82R	1180	48 - 206	3355	Glu-9 to Gly-17.	L0667: 1, L0363: 1, L0794: 1, L0803: 1, L0375: 1, L0651: 1, L0806: 1, L0805: 1, L0654: 1, L0379: 1, L0526: 1, L0519: 1, L0647: 1, L0791: 1, S0428: 1, H0144: 1, S0374: 1, H0520: 1, S0126: 1, H0711: 1, H0660: 1, H0672: 1, S0328: 1, H0539: 1, S0406: 1, H0555: 1, H0436: 1, H0627: 1, S0432: 1, S0037: 1, L0743: 1, L0744: 1, L0751: 1, S0031: 1, S0394: 1, L0592: 1, L0485: 1, L0608: 1, L0366: 1, H0136: 1, H0506: 1 and H0352: 1.
HCRME42	HCRME42R	1181	1 - 537	3356	Lys-14 to Gly-26, Glu-33 to Arg-44, Pro-64 to Pro-69, Pro-79 to Asn-88, Thr-109 to Pro-123.	
HDABR53	HDABR53R	1182	2 - 463	3357		
HDLBE03	HDLBE03R	1183	158 - 325	3358	Ala-17 to Asn-23.	
HDPFI26	HDPFI26R	1184	37 - 303	3359	Ser-1 to Thr-8,	

HDTAQ74	HDTAQ74R	1185	133 - 414	3360	Glu-17 to Ala-32, Arg-39 to Trp-47.	L0759: 10, L0774: 3, H0648: 3, H0686: 2, S0360: 2, L0622: 2, H0486: 2, L0521: 2, L0775: 2, H0659: 2, S0328: 2, L0779: 2, L0755: 2, H0341: 1, S0354: 1, S0358: 1, H0351: 1, S0222: 1, L0021: 1, H0025: 1, L0105: 1, T0115: 1, H0545: 1, H0571: 1, H0050: 1, L0471: 1, S6028: 1, S0003: 1, H0031: 1, H0316: 1, H0038: 1, H0087: 1, H0494: 1, H0509: 1, S0142: 1, L0520: 1, L0769: 1, L0638: 1, L0772: 1, L0794: 1, L0803: 1, L0804: 1, L0382: 1, L0367: 1, L0665: 1, S0374: 1, H0690: 1, H0684: 1, S0044: 1, S3012: 1, S0027: 1, L0744: 1, L0777: 1, L0758: 1, L0604: 1, S0026: 1 and

HDTBP08	HDTBP08R	1186	231 - 431	3361	Leu-21 to Ala-27, Pro-48 to Gly-55.	S0276: 1.	L0748: 50, L0754: 42, L0731: 31, H0644: 30, L0747: 29, H0551: 22, S0418: 21, L0659: 17, H0619: 15, L0663: 14, L0666: 13, S0360: 10, H0622: 10, H0031: 10, H0553: 10, L0662: 10, S0126: 10, L0757: 10, L0603: 10, S0420: 8, H0486: 8, H0013: 8, H0050: 8, H0623: 8, L0717: 7, H0144: 7, L0770: 6, L0750: 6, H0427: 5, H0024: 5, H0328: 5, H0030: 5, L0773: 5, L0665: 5, L0749: 5, H0713: 4, T0039: 4, S0280: 4, H0012: 4, H0038: 4, L0794: 4, L0774: 4, L0775: 4, L0805: 4, H0624: 3, H0170: 3, H0171: 3, S0356: 3, H0329: 3, S0046: 3,
HDTDA21	HDTDA21R	1187	207 - 431	3362	Ala-14 to Leu-20.		
HDTDB88	HDTDB88R	1188	102 - 215	3363	Tyr-25 to Phe-32.		
HDTJR38	HDTJR38R	1189	179 - 364	3364			

H0331: 3,	H0575: 3,
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S0250: 3,	H0032: 3,
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L0657: 3,	H0670: 3,
S0406: 3,	H0555: 3,
L0780: 3,	L0605: 3,
H0667: 3,	H0717: 2,
T0049: 2,	S0212: 2,
H0661: 2,	S0376: 2,
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H0375: 2,	L0142: 2,
H0598: 2,	H0135: 2,
H0040: 2,	S0372: 2,
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L0769: 2,	L5566: 2,
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L0771: 2,	L0363: 2,
L0768: 2,	L0375: 2,
L0654: 2,	L0776: 2,
L0809: 2,	L0438: 2,
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S0222: 1, H0370: 1,
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T0060: 1, H0244: 1,
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T0003: 1, H0057: 1,
H0015: 1, H0373: 1,
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HE8QX44	HE8QX44R	1190	1 - 288	3365	Thr-8 to Thr-22, Phe-42 to Lys-51, Arg-60 to Lys-69.
HE9QU94	HE9QU94R	1191	3 - 170	3366	Arg-1 to Cys-23, Trp-25 to Ser-35.
HEAHF02	HEAHF02R	1192	32 - 376	3367	Ser-10 to Thr-34, Ser-37 to Asn-89.
HEEAY40	HEEAY40R	1193	3 - 128	3368	Thr-15 to Ser-26.

HEGAF68	HEGAF68R	1194	45 - 221	3369	Glu-9 to Gly-17.	
HEOSP11	HEOSP11R	1195	96 - 395	3370	Pro-13 to Leu-25.	H0457: 14, L0751: 13, H0617: 8, L0761: 7, L0666: 6, L0664: 6, L0665: 6, H0593: 6, L0662: 5, L0748: 5, H0052: 4, H0014: 4, H0529: 4, L0655: 4, L0809: 4, L0663: 4, H0436: 4, L0747: 4, L0758: 4, H0592: 3, H0587: 3, H0581: 3, L0763: 3, L0769: 3, L0659: 3, H0539: 3, L0779: 3, S0434: 3, H0506: 3, H0295: 2, H0650: 2, H0657: 2, L0005: 2, S0356: 2, S0442: 2, S0354: 2, S0360: 2, H0580: 2, H0733: 2, H0553: 2, H0135: 2, H0560: 2, H0625: 2, H0647: 2, L0374: 2, L0657: 2, L0647: 2, H0682: 2, H0672: 2, H0521: 2, S0028: 2, L0743: 2, L0749: 2, L0752: 2, L0755: 2, L0759: 2, L0593: 2, S0446: 2,

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H0656: 1, S0001: 1,
H0661: 1, H0663: 1,
H0402: 1, S0418: 1,
S0420: 1, S0358: 1,
S0376: 1, S0408: 1,
S0045: 1, S0132: 1,
H0619: 1, H0549: 1,
S0222: 1, H0441: 1,
H0392: 1, H0600: 1,
H0586: 1, H0559: 1,
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S0280: 1, H0599: 1,
H0575: 1, H0618: 1,
H0318: 1, S0474: 1,
S0049: 1, H0251: 1,
T0115: 1, H0545: 1,
H0009: 1, H0567: 1,
H0571: 1, H0050: 1,
L0471: 1, S0051: 1,
S6028: 1, H0687: 1,
H0428: 1, H0622: 1,
T0006: 1, H0213: 1,
L0142: 1, H0181: 1,
H0032: 1, H0056: 1,
H0100: 1, H0494: 1,
H0561: 1, H0652: 1,
S0142: 1, S0344: 1,
L0625: 1, L0770: 1,

HFABK01	HFABK01R	1196	26 - 112	3371	Asn-4 to Tyr-9.	L0639: 1, L0646: 1, L0800: 1, L0641: 1, L0642: 1, L0648: 1, L0794: 1, L0766: 1, L0649: 1, L0650: 1, L0774: 1, L0651: 1, L0653: 1, L0776: 1, L0629: 1, L0656: 1, L0636: 1, L5623: 1, L0792: 1, S0428: 1, H0726: 1, S0310: 1, H0690: 1, H0684: 1, H0658: 1, H0670: 1, S0330: 1, S0380: 1, S0404: 1, S0406: 1, H0555: 1, L0611: 1, H0540: 1, L0741: 1, L0744: 1, L0777: 1, S0436: 1, L0601: 1, L0366: 1, S0106: 1, S0192: 1, H0423: 1 and S0424: 1.
HFADS75	HFADS75R	1197	102 - 365	3372	Ala-16 to Arg-26, Pro-68 to Gly-78.	
HFIBG63	HFIBG63R	1198	2 - 409	3373		
HFIJB15	HFIJB15R	1199	32 - 151	3374		
HFIXK57	HFIXK57R	1200	2 - 211	3375		H0594: 18, L0777: 10, L0766: 6, H0595: 6, H0170: 5, H0373: 5,

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HFIZQ64	HFIZQ64R	1201	18 - 137	3376	Glu-27 to Leu-36.	L0761: 1, L0667: 1, L0630: 1, L0372: 1, L0764: 1, L0521: 1, L0533: 1, L0775: 1, L0651: 1, L0806: 1, L0655: 1, L0656: 1, S0374: 1, H0547: 1, S0328: 1, H0539: 1, H0696: 1, L0741: 1, L0744: 1, L0740: 1, L0754: 1, L0747: 1, L0750: 1, L0753: 1, L0759: 1, S0031: 1, L0485: 1, L0362: 1, S0242: 1, H0543: 1 and S0398: 1.
HFKKK36	HFKKK36R	1202	3 - 86	3377	Pro-3 to Tyr-22.	
HFPEC93	HFPEC93R	1203	75 - 233	3378	Lys-17 to Thr-23.	
HFPIX37	HFPIX37R	1204	1 - 270	3379	Pro-75 to Cys-89.	AR089: 4, AR096: 3, AR033: 3, AR060: 3, AR061: 1, AR104: 1, AR055: 1, AR053: 0, AR039: 0, AR052: 0
HFTDK36	HFTDK36R	1205	18 - 314	3380	Cys-5 to Pro-21,	H0583: 1, H0662: 1, S0222: 1, S0049: 1, H0272: 1, H0670: 1, H0521: 1, H0555: 1 and S0436: 1.

HFVIB28	HFVIB28R	1206	11 - 250	3381	His-66 to Leu-77, Gln-80 to Ala-88, Tyr-92 to Ser-98.		
HFXGR60	HFXGR60R	1207	353 - 57	3382		S0001: 1	
HHAUD07	HHAUD07R	1208	304 - 426	3383	Val-24 to Leu-31.		
HHBFO21	HHBFO21R	1209	54 - 230	3384			
HHEVG50	HHEVG50R	1210	1 - 474	3385			
HHFGQ65	HHFGQ65RA	1211	53 - 277	3386	Arg-2 to Ser-7.		
HHFOE48	HHFOE48RP 00B	1212	181 - 426	3387			H0666: 13, S0358: 10, H0620: 10, L0750: 8, L0747: 7, L0731: 7, H0135: 5, L0659: 5, L0740: 5, L0757: 5, S0360: 4, H0123: 4, S0022: 4, L0666: 4, L0665: 4, S0028: 4, L0748: 4, L0777: 4, L0588: 4, H0265: 3, S0420: 3, H0208: 3, H0545: 3, H0046: 3, H0024: 3, H0284: 3, H0100: 3, L0650: 3, L0375: 3, L0382: 3, H0651: 3, L0755: 3, H0352: 3, S0278: 2, H0592: 2, H0333: 2, H0253: 2, H0544: 2, H0081: 2, H0012: 2, H0286: 2,

H0252: 2, H0428: 2,
H0628: 2, H0551: 2,
S0210: 2, L0763: 2,
L0770: 2, L0774: 2,
L0661: 2, L0518: 2,
L0809: 2, H0547: 2,
H0682: 2, H0670: 2,
S0037: 2, S0027: 2,
L0751: 2, L0752: 2,
L0758: 2, L0601: 2,
H0668: 2, S0194: 2,
H0170: 1, H0556: 1,
H0686: 1, S0040: 1,
H0716: 1, H0295: 1,
H0341: 1, H0638: 1,
S0418: 1, S0376: 1,
S0444: 1, H0580: 1,
H0329: 1, S0468: 1,
S0045: 1, S0046: 1,
S0132: 1, S0476: 1,
H0619: 1, H0645: 1,
L0717: 1, H0549: 1,
H0550: 1, H0586: 1,
H0587: 1, L0021: 1,
H0575: 1, H0581: 1,
H0052: 1, H0309: 1,
H0546: 1, H0457: 1,
H0150: 1, H0041: 1,
H0563: 1, H0050: 1,
L0163: 1, H0051: 1,

HHSFG15	HHSFG15R	1213	3 - 62	3388		H0615: 1, H0688: 1, H0031: 1, H0634: 1, H0087: 1, H0334: 1, H0633: 1, H0646: 1, L0772: 1, L0800: 1, L0643: 1, L0764: 1, L0662: 1, L0767: 1, L0775: 1, L0651: 1, L0806: 1, L0805: 1, L0776: 1, L0656: 1, L0783: 1, L0383: 1, L0543: 1, L0789: 1, L0663: 1, H0593: 1, H0684: 1, H0659: 1, H0658: 1, H0660: 1, H0709: 1, S0152: 1, H0521: 1, H0627: 1, L0611: 1, L0439: 1, L0745: 1, L0759: 1, L0593: 1, L0361: 1, L0603: 1, S0026: 1, H0667: 1 and H0506: 1.
HHSGP15	HHSGP15R	1214	77 - 142	3389		
HHSGQ17	HHSGQ17R	1215	112 - 270	3390		
HKBAD05	HKBAD05R	1216	49 - 315	3391	Pro-13 to Leu-18, Leu-37 to Arg-42, Lys-65 to Gly-77.	
HKZAD21	HKZAD21R	1217	244 - 405	3392	Val-40 to Tyr-46.	
HKZAE07	HKZAE07R	1218	1 - 138	3393	L0752: 11, L0662: 9,	

L0596: 9, L0659: 8, L0665: 7, L0766: 5, L0750: 5, L0521: 4, L0740: 4, L0757: 4, L0771: 3, L0775: 3, L0809: 3, L0666: 3, L0664: 3, H0648: 3, L0755: 3, L0758: 3, L0591: 3, L0785: 2, L0717: 2, H0036: 2, H0052: 2, H0529: 2, L0769: 2, L0637: 2, L0646: 2, L0765: 2, L0651: 2, L0653: 2, L0776: 2, L0655: 2, L0663: 2, H0682: 2, L0748: 2, L0439: 2, L0731: 2, L0759: 2, L0593: 2, L0595: 2, L0601: 2, H0686: 1, S0134: 1, L0778: 1, H0484: 1, H0661: 1, H0662: 1, H0393: 1, H0643: 1, H0002: 1, H0599: 1, H0318: 1, S0049: 1, H0251: 1, L0040: 1, H0545: 1, L0041: 1, N0006: 1, N0007: 1, S0388: 1, L0483: 1, H0606: 1,

H0038: 1, H0040: 1, H0551: 1, H0413: 1, H0059: 1, H0560: 1, H0538: 1, S0002: 1, L0763: 1, L0772: 1, L0364: 1, L0649: 1, L0661: 1, L0657: 1, L0542: 1, L0526: 1, L0783: 1, L0382: 1, L0519: 1, L0528: 1, L0788: 1, L0565: 1, L0438: 1, H0547: 1, H0689: 1, H0690: 1, H0435: 1, H0658: 1, H0660: 1, S0328: 1, L0602: 1, S0004: 1, S0044: 1, S0404: 1, H0555: 1, H0436: 1, S0028: 1, L0742: 1, L0751: 1, L0747: 1, L0756: 1, L0592: 1, L0581: 1, L0603: 1, H0543: 1, H0422: 1 and H0352: 1.

HKZAG45	HKZAG45RA	1219	79 - 327	3394	Gly-1 to Val-7, Lys-15 to Leu-25, Pro-52 to Cys-57.
HKZAI14	HKZAI14R	1220	3 - 368	3395	Lys-47 to Glu-52, Ala-71 to Asp-76, Asp-89 to Ser-110.

HKZAI68	HKZAI68RA	1221	2 - 79	3396	Ser-9 to Ala-15.	
						S0474: 22, S0360: 13, H0556: 11, S0358: 11, L0747: 11, H0087: 10, S0126: 10, H0124: 9, S0410: 8, S0278: 8, H0024: 8, L0588: 8, S0206: 7, S0046: 6, L0731: 6, H0543: 6, H0265: 5, S0212: 5, S0045: 5, H0620: 5, H0594: 5, H0090: 5, H0063: 5, H0551: 5, T0042: 5, L0530: 5, H0144: 5, H0696: 5, S3014: 5, L0758: 5, S0192: 5, S0116: 4, H0549: 4, H0013: 4, H0530: 4, H0544: 4, H0081: 4, L0471: 4, H0012: 4, H0644: 4, H0163: 4, H0412: 4, H0100: 4, L0769: 4, L0771: 4, S0027: 4, L0740: 4, L0757: 4, L0605: 4, H0423: 4, H0624: 3, H0713: 3, S0418: 3, S0444: 3, S0408: 3, H0251: 3, H0545: 3, S0051: 3, H0083: 3, H0290: 3,

T0041: 3, S0344: 3,
L0662: 3, L0768: 3,
L0806: 3, L0659: 3,
L0608: 3, S0194: 3,
H0352: 3, S0040: 2,
H0717: 2, H0716: 2,
S0134: 2, H0341: 2,
H0402: 2, H0305: 2,
S0356: 2, H0580: 2,
S0476: 2, H0411: 2,
H0392: 2, H0586: 2,
H0575: 2, H0052: 2,
H0327: 2, H0546: 2,
H0373: 2, L0163: 2,
H0687: 2, H0284: 2,
H0286: 2, H0428: 2,
H0039: 2, H0628: 2,
H0413: 2, H0056: 2,
S0440: 2, L0598: 2,
L0770: 2, L0521: 2,
L0776: 2, L0542: 2,
L0783: 2, L0529: 2,
L0663: 2, H0519: 2,
H0659: 2, S0378: 2,
H0518: 2, S0044: 2,
H0555: 2, H0627: 2,
S0028: 2, L0748: 2,
L0756: 2, L0755: 2,
S0031: 2, H0445: 2,
L0596: 2, L0591: 2,

L0361: 2, S0026: 2, H0506: 2, H0171: 1, H0157: 1, S0342: 1, T0049: 1, H0656: 1, S0282: 1, H0484: 1, H0255: 1, H0663: 1, S0420: 1, S0376: 1, L0717: 1, S6022: 1, H0441: 1, H0370: 1, H0592: 1, H0333: 1, H0492: 1, L0623: 1, T0039: 1, T0114: 1, H0635: 1, H0427: 1, S0280: 1, H0156: 1, L0021: 1, H0706: 1, H0004: 1, H0581: 1, S0049: 1, H0196: 1, H0085: 1, H0235: 1, T0115: 1, H0046: 1, H0086: 1, H0041: 1, H0123: 1, H0015: 1, H0051: 1, N0007: 1, H0408: 1, H0375: 1, H0266: 1, H0271: 1, H0416: 1, H0292: 1, S0003: 1, H0622: 1, L0483: 1, H0553: 1, H0617: 1, H0032: 1, H0673: 1, H0674: 1, H0135: 1, H0616: 1,

H0623: 1, S0438: 1, H0132: 1, S0150: 1, H0633: 1, S0144: 1, S0210: 1, S0002: 1, S0426: 1, H0695: 1, L0763: 1, L0772: 1, L0643: 1, L0764: 1, L0766: 1, L0650: 1, L0774: 1, L0775: 1, L0654: 1, L0657: 1, L0540: 1, L0526: 1, L0518: 1, L0782: 1, L0384: 1, L0519: 1, L0544: 1, L0793: 1, L0666: 1, H0702: 1, H0701: 1, H0547: 1, H0689: 1, H0682: 1, H0660: 1, H0672: 1, H0651: 1, S0328: 1, S0330: 1, H0539: 1, S0380: 1, H0521: 1, H0522: 1, S0004: 1, H0134: 1, H0436: 1, S0392: 1, S0390: 1, S0037: 1, S0032: 1, L0743: 1, L0439: 1, L0754: 1, L0750: 1, L0779: 1, L0759: 1, S0260: 1, H0595: 1, H0707: 1, L0604: 1,

HKZAQ39	HKZAQ39R	1222	1 - 480	3397	Ser-1 to Lys-6, Asp-48 to Gly-55, Pro-68 to Phe-76, Pro-83 to Gly-89, Asn-100 to Asp-108, Glu-134 to Lys-141, Lys-144 to Asp-160.	H0668: 1, H0653: 1, H0542: 1, H0422: 1, S0042: 1, S0456: 1 and S0446: 1.
HKZAR58	HKZAR58R	1223	3 - 266	3398	Met-41 to Gln-47.	
HKZAS59	HKZAS59R	1224	1 - 462	3399	Gln-54 to Leu-59, Glu-70 to Lys-76, Lys-147 to Ser-154.	
HKZAS64	HKZAS64R	1225	1 - 276	3400	Asp-1 to His-35, Pro-67 to His-75.	
HKZAS84	HKZAS84R	1226	2 - 103	3401	Ser-11 to Gly-18.	L0743: 19, L0731: 13, L0744: 12, L0748: 11, L0666: 9, L0751: 9, L0664: 8, H0144: 8, H0333: 7, H0617: 7, L0769: 7, L0662: 7, S0022: 6, H0616: 6, H0087: 6, L0483: 5, H0181: 5, L0517: 5, L0519: 5, L0754: 5, H0677: 5, S0051: 4, S0344: 4, L0663: 4,

H0658: 4, L0747: 4, L0750: 4, L0757: 4, H0295: 3, T0049: 3, H0255: 3, L0622: 3, T0039: 3, H0253: 3, H0545: 3, L0163: 3, H0594: 3, H0188: 3, H0673: 3, H0100: 3, S0142: 3, L0372: 3, L0775: 3, L0776: 3, L0657: 3, L0382: 3, L0665: 3, H0672: 3, S0027: 3, L0742: 3, L0752: 3, S0260: 3, H0445: 3, L0596: 3, L0588: 3, L0599: 3, S0420: 2, H0637: 2, S0045: 2, S0132: 2, S0300: 2, S0278: 2, S0222: 2, H0431: 2, H0392: 2, H0599: 2, H0575: 2, H0052: 2, H0309: 2, H0085: 2, H0597: 2, H0544: 2, H0428: 2, H0124: 2, S0036: 2, H0163: 2, H0038: 2, H0413: 2, H0529: 2, L0369: 2, L0763: 2, L0770: 2, L0638: 2, L0764: 2,

L0771: 2, L0803: 2, L0804: 2, L0375: 2, L0655: 2, L0384: 2, L0809: 2, L0532: 2, S0374: 2, S0126: 2, H0670: 2, H0651: 2, H0521: 2, S0028: 2, L0740: 2, L0485: 2, L0362: 2, L0601: 2, S0192: 2, S0424: 2, L0600: 2, H0556: 1, T0002: 1, H0686: 1, S0040: 1, S0342: 1, H0294: 1, S0114: 1, S0134: 1, H0650: 1, H0657: 1, L0785: 1, H0341: 1, S0180: 1, S0212: 1, H0484: 1, H0483: 1, H0254: 1, H0671: 1, H0662: 1, H0402: 1, H0638: 1, S0418: 1, S0356: 1, T0007: 1, S0358: 1, S0007: 1, H0208: 1, H0441: 1, H0438: 1, H0587: 1, S0005: 1, L0623: 1, L0477: 1, T0114: 1, S0280: 1, L0021: 1, H0590: 1, H0004: 1, H0618: 1,

S0010: 1, H0318: 1,
S0049: 1, H0251: 1,
H0596: 1, T0110: 1,
H0327: 1, H0009: 1,
H0123: 1, L0471: 1,
H0006: 1, H0014: 1,
H0051: 1, S0388: 1,
H0510: 1, S0334: 1,
H0687: 1, T0023: 1,
T0006: 1, H0424: 1,
H0182: 1, H0606: 1,
H0383: 1, H0165: 1,
H0166: 1, S0366: 1,
H0135: 1, H0090: 1,
T0067: 1, H0488: 1,
H0412: 1, T0069: 1,
S0112: 1, L0564: 1,
H0494: 1, S0015: 1,
H0561: 1, L0762: 1,
L0640: 1, L0637: 1,
L0761: 1, L0667: 1,
L0772: 1, L0373: 1,
L0646: 1, L0643: 1,
L0374: 1, L0765: 1,
L0773: 1, L0648: 1,
L0521: 1, L0768: 1,
L0364: 1, L0533: 1,
L0650: 1, L0774: 1,
L0376: 1, L0806: 1,
L0652: 1, L0653: 1,

HKZAV69	HKZAV69R	1227	2 - 412			L0606: 1, L0629: 1, L0659: 1, L0636: 1, L0542: 1, L0526: 1, L0518: 1, L0782: 1, L0783: 1, H0689: 1, H0690: 1, H0682: 1, H0683: 1, H0659: 1, H0660: 1, S0328: 1, S0330: 1, S0380: 1, H0522: 1, S0004: 1, H0555: 1, L0611: 1, S3014: 1, S0206: 1, L0755: 1, L0758: 1, H0444: 1, L0587: 1, L0589: 1, L0605: 1, L0591: 1, L0608: 1, L0361: 1, L0366: 1, H0665: 1, S0242: 1, S0194: 1, H0543: 1, H0423: 1, S0460: 1, S0456: 1 and H0506: 1.
				3402	Val-6 to Lys-13, Tyr-23 to Asn-33, Lys-46 to Lys-51, Leu-75 to Asn-85, Asp-101 to Glu-106.	
HKZAV72	HKZAV72R	1228	2 - 163	3403	Cys-1 to Val-33, Ala-47 to Glu-54.	
HKZAX48	HKZAX48R	1229	137 - 361	3404		L0771: 3, L0021: 1, S0036: 1, H0689: 1 and

HKZBB22	HKZBB22R	1230	2 - 520	3405	Arg-5 to Leu-11, Arg-32 to Lys-39, Thr-117 to Lys-122.	H0659: 1.
HKZBS89	HKZBS89R	1231	1 - 381	3406	Gln-41 to His-48, Leu-55 to Gly-61, Pro-71 to Gly-79, Ala-104 to His-111.	
HLDQQ80	HLDQQ80R	1232	2 - 112	3407		
HLDXE19	HLDXE19R	1233	2 - 190	3408	Ala-2 to Lys-12.	
HLICD55	HLICD55R	1234	2 - 151	3409		
HLJBI32	HLJBI32R	1235	430 - 648	3410		
HLJBI37	HLJBI37R	1236	144 - 398	3411	Pro-77 to Lys-85.	
HLTHA47	HLTHA47R	1237	118 - 411	3412	Pro-82 to Lys-92.	
HLTJA50	HLTJA50R	1238	331 - 585	3413		
HLWAC95	HLWAC95R	1239	2 - 337	3414	Gln-20 to Ser-30.	
HLWDZ38	HLWDZ38R	1240	57 - 275	3415	Phe-45 to Ser-51.	
HLYDI57	HLYDI57R	1241	2 - 238	3416		
HMCFO19	HMCFO19R	1242	131 - 199	3417		
HMCIZ44	HMCIZ44R	1243	67 - 225	3418	Lys-17 to Thr-23.	
HMCJE25	HMCJE25R	1244	3 - 161	3419	Met-40 to Thr-52.	
HMSPB25	HMSPB25R	1245	324 - 145	3420		
HMVBB04	HMVBB04R	1246	136 - 276	3421	Lys-18 to Lys-30.	
HNAAE01	HNAAE01R	1247	2 - 196	3422	Lys-18 to Lys-30.	
HNBUP08	HNBUP08R	1248	127 - 474	3423	Pro-37 to Arg-46, Gln-75 to Gly-81, Pro-83 to Ser-89.	L0766: 5, L0751: 4, H0662: 2, H0253: 2, L0754: 2, L0750: 2, H0170: 1, H0587: 1, H0327: 1, H0688: 1,

HNBUY37	HNBUY37R	1249	2 - 289	3424	H0428: 1, S0210: 1, L0763: 1, L0770: 1, L0769: 1, L0646: 1, L0662: 1, L0803: 1, L0776: 1, L0655: 1, L0658: 1, L0659: 1, L0789: 1, L0666: 1, L0663: 1, L0665: 1, H0658: 1, H0670: 1, H0660: 1, S0380: 1, L0740: 1, L0755: 1, L0758: 1, L0589: 1, L0361: 1 and S0192: 1.
HNBVL57	HNBVL57R	1250	179 - 541	3425	L0783: 4, S0280: 2, H0662: 1, H0550: 1, L0764: 1, L0662: 1, L0809: 1 and H0684: 1.
HNHBC18	HNHBC18R	1251	1 - 279	3426	Glu-18 to Asp-35, Leu-52 to Gly-82.
HNJFE85	HNJFE85R	1252	2 - 454	3427	
HNKCO29	HNKCO29R	1253	1 - 351	3428	
HNOAA22	HNOAA22R	1254	33 - 425	3429	
HNOAB27	HNOAB27R	1255	397 - 621	3430	
HNOAB28	HNOAB28R	1256	116 - 232	3431	
HNOAB88	HNOAB88R	1257	3 - 551	3432	
HNOAC04	HNOAC04R	1258	112 - 219	3433	
HNOAC15	HNOAC15R	1259	1 - 138	3434	Thr-1 to Ser-8, Pro-22 to Ser-27.

HNOAE50	HNOAE50R	1260	89 - 577	3435	Thr-5 to Thr-14, Arg-20 to His-25, Arg-35 to Gly-40, Lys-58 to Arg-66, His-101 to Ser-107, Arg-111 to Lys-125, Leu-131 to Glu-140.	
HNOAE65	HNOAE65R	1261	2 - 535	3436	Pro-13 to Arg-21, Ser-42 to Phe-52, Lys-69 to Val-77, Ile-82 to Glu-87, Gly-93 to Gln-99, Val-118 to Asn-124, Lys-143 to Leu-152, Arg-154 to Glu-178.	
HNOAF22	HNOAF22R	1262	67 - 555	3437	Thr-5 to Thr-14, Arg-20 to His-25, Arg-35 to Gly-40, Lys-58 to Arg-66, His-101 to Ser-107, Arg-111 to Lys-125, Leu-131 to Arg-139, Arg-145 to Leu-153.	
HNOAF36	HNOAF36R	1263	2 - 145	3438	Arg-11 to Pro-17.	H0651: 2
HNOAG34	HNOAG34R	1264	42 - 362	3439		
HNOAG94	HNOAG94R	1265	28 - 177	3440		
HNOAH67	HNOAH67R	1266	2 - 364	3441		
HNOAJ67	HNOAJ67R	1267	3 - 524.	3442	Cys-2 to Gly-7.	
HNOAJ76	HNOAJ76R	1268	351 - 536	3443	Trp-6 to Glu-12.	H0134: 9, L0771: 8,

L0748: 7, L0731: 6, L0591: 6, L0592: 6, L0770: 5, L0747: 5, L0749: 5, L0750: 5, H0136: 5, H0050: 4, H0625: 4, H0529: 4, L0769: 4, L0752: 4, L0758: 4, S0007: 3, S0045: 3, H0591: 3, H0561: 3, L0761: 3, L0645: 3, L0766: 3, L0655: 3, L0657: 3, L0666: 3, H0696: 3, H0436: 3, L0754: 3, L0756: 3, L0755: 3, H0543: 3, H0686: 2, H0125: 2, S0420: 2, S0376: 2, H0351: 2, H0581: 2, S0049: 2, H0052: 2, L0163: 2, H0428: 2, H0090: 2, H0040: 2, T0041: 2, H0494: 2, H0646: 2, L0763: 2, L0521: 2, L0776: 2, L0665: 2, H0144: 2, L0751: 2, L0745: 2, S0031: 2, L0581: 2, L0608: 2, H0170: 1, H0171: 1, H0394: 1, S0114: 1,

S0218: 1, H0656: 1, S0444: 1, S0360: 1, H0637: 1, H0580: 1, H0619: 1, H0393: 1, L0717: 1, H0497: 1, H0486: 1, T0039: 1, T0114: 1, H0013: 1, H0244: 1, H0635: 1, H0427: 1, H0318: 1, H0178: 1, L0157: 1, H0081: 1, S0051: 1, H0292: 1, S0003: 1, L0483: 1, H0316: 1, H0135: 1, H0634: 1, H0551: 1, H0560: 1, S0440: 1, H0538: 1, L0640: 1, L0796: 1, L0667: 1, L0772: 1, L0373: 1, L0764: 1, L0662: 1, L0363: 1, L0768: 1, L0649: 1, L0388: 1, L0650: 1, L0774: 1, L0775: 1, L0375: 1, L05524: 1, L0653: 1, L0659: 1, L0663: 1, L0664: 1, S0053: 1, H0520: 1, S0126: 1, H0435: 1, H0660: 1, H0672: 1, H0651: 1, H0521: 1,

HNOAK11	HNOAK11R	1269	2 - 157	3444		H0704: 1, S0044: 1, H0187: 1, S0028: 1, L0740: 1, L0779: 1, L0777: 1, L0753: 1, L0759: 1, L0596: 1, L0597: 1, L0595: 1, S0026: 1, H0217: 1 and S0384: 1.
HNOAL51	HNOAL51R	1270	43 - 207	3445		
HNOAN85	HNOAN85R	1271	1 - 180	3446		
HNOAO59	HNOAO59R	1272	403 - 759	3447	Phe-74 to Pro-81.	
HNOAO71	HNOAO71R	1273	2 - 283	3448	Gly-1 to Leu-6, Pro-47 to Asp-52, Lys-63 to Glu-68.	
HNOAP21	HNOAP21R	1274	2 - 730	3449	Arg-9 to Arg-27, Gly-43 to Lys-48, Asp-61 to Ser-67, Ala-124 to Gly-130, Thr-146 to Lys-151, Phe-165 to Lys-170.	
HNOAQ24	HNOAQ24R	1275	2 - 664	3450		L0666: 10, H0510: 8, H0046: 6, H0617: 6, S0051: 4, H0135: 4, L0776: 4, L0439: 4, L0509: 3, L0665: 3, L0747: 3, H0445: 3, H0662: 2, S0420: 2, S0222: 2, H0574: 2, H0632: 2, H0427: 2,

H0575: 2, H0618: 2, H0253: 2, H0052: 2, H0545: 2, H0123: 2, H0687: 2, H0428: 2, H0100: 2, L0662: 2, L0806: 2, L0657: 2, L0659: 2, L0664: 2, H0691: 2, H0651: 2, L0744: 2, L0592: 2, L0599: 2, L0601: 2, S0040: 1, S0212: 1, H0483: 1, H0255: 1, H0663: 1, S0354: 1, H0208: 1, S6022: 1, H0441: 1, H0357: 1, H0455: 1, H0592: 1, H0331: 1, N0009: 1, H0013: 1, S0280: 1, H0349: 1, H0042: 1, S0049: 1, H0327: 1, H0544: 1, H0178: 1, H0012: 1, H0246: 1, H0024: 1, H0071: 1, H0107: 1, S6028: 1, H0266: 1, T0023: 1, T0006: 1, H0124: 1, S0036: 1, H0264: 1, H0059: 1, H0633: 1, H0647: 1, S0142: 1, L0369: 1, L0371: 1,

HNOAQ47	HNOAQ47R	1276	1 - 642	3451	Ser-15 to Glu-23, Val-33 to Gly-40, Arg-47 to Pro-59, Ser-64 to Phe-70, Gly-92 to Lys-97, Lys-155 to Glu-166.	L0770: 1, L0769: 1, L0645: 1, L0764: 1, L0768: 1, L0775: 1, L0651: 1, L0525: 1, L0378: 1, L0653: 1, L0518: 1, L0809: 1, L0789: 1, L0792: 1, H0520: 1, S0126: 1, H0659: 1, H0658: 1, H0672: 1, H0539: 1, H0521: 1, S0044: 1, S0028: 1, L0743: 1, L0748: 1, S0031: 1, L0485: 1, H0653: 1, H0665: 1, H0667: 1, S0192: 1 and L0698: 1.
HNOAR74	HNOAR74R	1277	122 - 400	3452	Pro-5 to Gly-11, Ser-20 to Ser-27.	L0794: 3, H0657: 2, L0766: 2, L0783: 2, L0789: 2, L0777: 2, L0759: 2, H0656: 1, S0116: 1, S0444: 1, S0360: 1, H0431: 1, S0010: 1, H0052: 1, H0596: 1, H0687: 1,

| HNOAR85 | HNOAR85R | 1278 | 278 - 562 | 3453 | Ser-48 to Leu-56, Ser-70 to Val-75, Thr-83 to Ala-92. | L0758: 6, H0031: 4, H0341: 3, S0022: 3, S0376: 2, H0586: 2, H0156: 2, H0575: 2, L0769: 2, L0803: 2, L0655: 2, L0809: 2, H0522: 2, S0027: 2, H0445: 2, S0412: 2, H0656: 1, S0358: 1, S0360: 1, H0574: 1, H0486: 1, H0013: 1, H0318: 1, H0327: 1, L0157: 1, H0015: 1, H0083: 1, S0003: 1, S0214: 1, H0039: 1, H0673: 1, H0591: 1, T0067: 1, H0412: 1, H0494: 1, H0529: 1, | H0634: 1, L0637: 1, L0648: 1, L0649: 1, L0804: 1, L0774: 1, L0776: 1, L0655: 1, L0606: 1, L0809: 1, H0144: 1, H0698: 1, L0438: 1, H0690: 1, H0660: 1, H0651: 1, L0747: 1, L0749: 1, L0758: 1, L0601: 1, S0242: 1, S0196: 1 and H0543: 1. |

HNOAS07	HNOAS07R	1279	84 - 521	3454	Asn-80 to Gly-86, Glu-133 to Arg-138.	L0372: 1, L0764: 1, L0794: 1, L0649: 1, L0774: 1, L0775: 1, L0651: 1, L0807: 1, L0657: 1, L0789: 1, L0663: 1, H0519: 1, S0126: 1, H0684: 1, H0660: 1, H0666: 1, H0651: 1, H0518: 1, H0521: 1, S0028: 1, L0747: 1, L0777: 1, L0731: 1, S0194: 1, H0543: 1 and S0424: 1.
HNOAS36	HNOAS36R	1280	3 - 254	3455	Leu-1 to Thr-7, Pro-39 to Ser-48, Trp-62 to Thr-68.	
HNOAS92	HNOAS92R	1281	2 - 385	3456	Pro-28 to Tyr-37, Leu-52 to Trp-57, Lys-109 to Leu-114.	H0457: 4, H0441: 3, H0393: 2, H0052: 2, H0620: 2, S0144: 2, H0521: 2, H0341: 1, S0358: 1, H0587: 1, H0632: 1, H0581: 1, H0309: 1, L0471: 1, H0622: 1, H0424: 1, H0213: 1, S0366: 1, H0163: 1, H0132: 1, S0142: 1, H0529: 1, H0547: 1, H0651: 1,

HNOAT40	HNOAT40R	1282	96 - 317	3457	S3014: 1, L0748: 1, L0777: 1 and L0599: 1. L0794: 5, H0052: 4, H0457: 4, L0438: 4, H0651: 4, H0581: 3, L0777: 3, S0116: 2, S0007: 2, S0222: 2, S0049: 2, N0006: 2, L0163: 2, S6028: 2, L0351: 2, H0130: 2, L0638: 2, L0803: 2, L0805: 2, L0439: 2, L0754: 2, L0750: 2, L0755: 2, H0580: 1, H0645: 1, H0486: 1, H0013: 1, S0346: 1, H0009: 1, L0157: 1, H0567: 1, H0562: 1, H0050: 1, T0010: 1, H0606: 1, H0040: 1, H0063: 1, S0210: 1, L0761: 1, L0667: 1, L0774: 1, L0526: 1, L0532: 1, L0666: 1, L0665: 1, H0658: 1, H0521: 1, H0576: 1, L0753: 1, L0758: 1, L0759: 1, L0593: 1, L0366: 1, H0543: 1 and S0462: 1.		

HNOAT76	HNOAT76R	1283	2 - 187	3458		
HNOAV91	HNOAV91R	1284	2 - 439	3459	Lys-28 to Tyr-49, Arg-75 to Ala-83, Thr-90 to Ala-95, Arg-107 to Asp-114, Arg-137 to Ser-146.	
HNOBD17	HNOBD17R	1285	98 - 316	3460		
HNOBE83	HNOBE83R	1286	2 - 607	3461	Arg-1 to Gly-6, Lys-21 to Gly-29, Gln-51 to Gly-56, Pro-82 to Asp-90, Lys-175 to Ser-180.	L0747: 16, H0651: 10, H0561: 9, L0758: 8, H0046: 7, L0663: 7, S0026: 7, H0656: 6, H0393: 6, H0494: 6, L0774: 6, L0659: 6, L0665: 6, L0750: 6, L0731: 6, L0596: 6, H0543: 6, H0341: 5, H0575: 5, H0529: 5, L0662: 5, L0655: 5, H0539: 5, L0439: 5, L0752: 5, S0114: 4, H0657: 4, H0351: 4, H0581: 4, H0551: 4, H0560: 4, S0372: 4, L0769: 4, L0764: 4, L0776: 4, H0144: 4, H0660: 4, H0648: 4, H0672: 4, S0028: 4, L0749: 4, L0362: 4, H0580: 3, H0497: 3, H0486: 3, H0318: 3,

H0014: 3, H0373: 3, H0553: 3, H0038: 3, T0041: 3, S0002: 3, L0761: 3, L0664: 3, S0126: 3, H0658: 3, H0666: 3, S0380: 3, S0152: 3, H0521: 3, H0707: 3, L0589: 3, L0605: 3, L0599: 3, L0593: 3, H0423: 3, H0265: 2, H0661: 2, S0356: 2, S0358: 2, S0360: 2, S0408: 2, S0410: 2, S0046: 2, H0409: 2, S0280: 2, H0251: 2, L0738: 2, L0471: 2, H0057: 2, L0185: 2, H0594: 2, H0188: 2, S0003: 2, H0090: 2, H0412: 2, H0413: 2, S0440: 2, S0150: 2, S0144: 2, H0538: 2, L0763: 2, L0627: 2, L0775: 2, L0653: 2, H0519: 2, H0435: 2, H0659: 2, H0436: 2, H0478: 2, S0027: 2, L0756: 2, L0755: 2, L0759: 2, H0445: 2, L0588: 2,

L0590: 2, H0542: 2, H0422: 2, H0171: 1, L0448: 1, H0556: 1, H0222: 1, S0342: 1, H0650: 1, S0035: 1, H0483: 1, H0671: 1, H0662: 1, H0449: 1, H0459: 1, H0125: 1, S0420: 1, S0354: 1, S0444: 1, S0045: 1, H0443: 1, H0370: 1, H0392: 1, L0622: 1, L0623: 1, T0040: 1, H0013: 1, H0635: 1, H0427: 1, H0156: 1, H0590: 1, S0010: 1, H0052: 1, T0110: 1, H0597: 1, H0546: 1, H0009: 1, H0093: 1, S0051: 1, T0010: 1, H0510: 1, H0267: 1, H0687: 1, H0252: 1, H0428: 1, H0039: 1, H0622: 1, H0181: 1, H0032: 1, H0068: 1, H0598: 1, H0040: 1, H0087: 1, T0067: 1, H0488: 1, L0564: 1, T0042: 1, H0625: 1, H0130: 1, H0641: 1,

HNOBV55	HNOBV55RA	1287	111 - 506	3462	H0633: 1, S0208: 1, S0422: 1, S0426: 1, L0520: 1, L0762: 1, L0770: 1, L0796: 1, L0630: 1, L0646: 1, L0773: 1, L0766: 1, L0381: 1, L0388: 1, L0804: 1, L0650: 1, L0375: 1, L0651: 1, L0784: 1, L0656: 1, L0518: 1, L0519: 1, L0530: 1, L0368: 1, S0053: 1, S0374: 1, H0547: 1, H0689: 1, H0682: 1, H0684: 1, H0670: 1, H0518: 1, S0013: 1, H0704: 1, S0044: 1, H0214: 1, S0404: 1, S0406: 1, H0555: 1, H0576: 1, S0392: 1, L0751: 1, S0031: 1, H0444: 1, S0106: 1, S0011: 1, H0667: 1, S0192: 1, S0242: 1, S0276: 1, L0697: 1 and L0360: 1.
HNOCE63	HNOCE63R	1288	2 - 394	3463	Pro-14 to Gly-22, Ile-31 to Ala-36, Lys-53 to Ile-65. Val-2 to Leu-20.

HNOCL43	HNOCL43R	1289	2 - 193	3464	
HNOCN02	HNOCN02R	1290	1 - 624	3465	
HNOCN10	HNOCN10R	1291	1 - 453	3466	H0556: 11, H0265: 9, H0012: 4, H0616: 4, H0393: 3, H0620: 3, L0163: 3, H0135: 3, S0002: 3, H0651: 3, L0596: 3, H0542: 3, H0543: 3, S0418: 2, S0045: 2, H0266: 2, S0150: 2, H0521: 2, L0591: 2, S0040: 1, H0341: 1, H0663: 1, S0354: 1, S0358: 1, S0046: 1, S0222: 1, H0586: 1, H0486: 1, H0635: 1, H0618: 1, H0581: 1, S0049: 1, H0263: 1, T0103: 1, T0110: 1, H0009: 1, T0003: 1, H0373: 1, S0051: 1, S0336: 1, H0290: 1, H0286: 1, H0328: 1, H0622: 1, H0553: 1, H0124: 1, H0090: 1, S0038: 1, H0100: 1, T0042: 1, S0015: 1, H0560: 1, H0509: 1, H0130: 1, L0654: 1, H0144: 1,

HNOCR44	HNOCR44R	1292	3 - 581	3467	Pro-1 to Lys-10, Phe-31 to Asn-37, Gln-42 to Leu-50, Arg-58 to Gln-65, Leu-86 to Ala-91, Tyr-101 to Ala-111.	L0438: 1, H0547: 1, H0519: 1, H0593: 1, H0435: 1, L0602: 1, S0332: 1, H0522: 1, H0134: 1, S3014: 1, L0439: 1, H0445: 1, S0434: 1, L0485: 1, L0604: 1, L0593: 1, L0594: 1, L0601: 1, H0422: 1 and S0398: 1.
HNOCU03	HNOCU03R	1293	1 - 258	3468	Glu-1 to Asp-6.	
HNODD77	HNODD77R	1294	204 - 407	3469		
HNODG11	HNODG11R	1295	63 - 320	3470	Ser-47 to Ile-53.	
HNODM92	HNODM92R	1296	269 - 583	3471	Gly-35 to Glu-41.	
HNODP28	HNODP28R	1297	480 - 707	3472		
HNOJA93	HNOJA93R	1298	1 - 453	3473	Gly-13 to Lys-20, Ala-26 to Lys-32, Ala-83 to Leu-88, Gly-128 to Val-135, Phe-142 to Asn-151.	
HNOJB10	HNOJB10R	1299	2 - 391	3474		S0358: 7, L0750: 7, S0360: 6, H0617: 5, S0126: 4, H0545: 3,

L0776: 3, S0374: 3, L0748: 3, L0755: 3, L0588: 3, H0422: 3, H0685: 2, H0549: 2, H0550: 2, H0632: 2, H0546: 2, H0424: 2, H0163: 2, H0551: 2, L0665: 2, H0593: 2, H0660: 2, S0330: 2, L0747: 2, L0749: 2, L0777: 2, L0757: 2, S0031: 2, H0556: 1, H0686: 1, H0295: 1, S0430: 1, H0657: 1, H0341: 1, H0662: 1, S0278: 1, H0282: 1, H0592: 1, H0586: 1, H0486: 1, T0039: 1, T0109: 1, H0004: 1, H0581: 1, H0309: 1, H0596: 1, T0110: 1, H0231: 1, H0123: 1, H0620: 1, H0083: 1, H0594: 1, H0687: 1, L0483: 1, H0644: 1, H0361: 1, H0087: 1, H0413: 1, H0059: 1, H0494: 1, S0306: 1, S0440: 1, H0509: 1, H0529: 1, L0762: 1,

Contig	Clone	cDNA SEQ ID	NT region	Protein SEQ ID	Features	Library/Clones
HNOJB57						L0770: 1, L0769: 1, L0372: 1, L0764: 1, L0771: 1, L0773: 1, L0775: 1, L0375: 1, L0556: 1, L0655: 1, L0807: 1, L0656: 1, L0659: 1, L0540: 1, L0783: 1, L0384: 1, S0216: 1, H0144: 1, H0691: 1, H0690: 1, H0684: 1, H0658: 1, H0670: 1, H0672: 1, S0328: 1, S0378: 1, S0380: 1, H0518: 1, H0555: 1, S3014: 1, S0032: 1, L0741: 1, H0445: 1, L0596: 1, S0192: 1, S0194: 1, S0460: 1 and H0352: 1.
	HNOJB57R	1300	2 - 355	3475	Arg-8 to Gln-18, Thr-24 to Gly-35, Lys-53 to Gly-61, Pro-77 to Cys-82, Pro-103 to Gln-117.	
HNOJD14	HNOJD14R	1301	2 - 439	3476		
HNOJF20	HNOJF20R	1302	10 - 165	3477	Leu-14 to Arg-20, Ser-29 to Ser-38, Pro-43 to Gly-52.	
HNOJG05	HNOJG05R	1303	288 - 572	3478	Ile-34 to Ala-40.	
HNOJH48	HNOJH48R	1304	2 - 283	3479	Arg-70 to Ser-78.	L0748: 17, L0749: 13,

L0666: 9, H0547: 8, L0758: 8, S0358: 7, S0003: 7, L0754: 7, L0485: 7, S0280: 6, H0038: 6, H0521: 6, S3014: 6, L0777: 6, L0755: 6, H0068: 5, L0659: 5, L0665: 5, L0744: 5, L0740: 5, L0591: 5, H0657: 4, H0656: 4, S0116: 4, H0318: 4, H0266: 4, H0687: 4, H0031: 4, H0040: 4, S0002: 4, S0206: 4, L0752: 4, H0445: 4, H0542: 4, H0423: 4, H0497: 3, H0013: 3, H0427: 3, H0046: 3, H0014: 3, H0615: 3, L0142: 3, S0036: 3, H0090: 3, H0551: 3, S0440: 3, L0662: 3, L0767: 3, H0696: 3, S0027: 3, S0028: 3, L0731: 3, L0362: 3, S0196: 3, H0662: 2, H0638: 2, H0580: 2, S0045: 2, S0222: 2, H0587: 2, H0486: 2, H0706: 2,

S0010: 2, S0346: 2, T0048: 2, S0474: 2, H0581: 2, H0428: 2, L0483: 2, H0553: 2, S0366: 2, H0634: 2, H0616: 2, H0412: 2, H0623: 2, L0763: 2, L0637: 2, L0667: 2, L0646: 2, L0768: 2, L0774: 2, L0657: 2, L0663: 2, H0144: 2, S0374: 2, H0520: 2, H0519: 2, S0126: 2, S0328: 2, S0146: 2, H0555: 2, H0436: 2, L0747: 2, L0595: 2, S0026: 2, S0194: 2, H0506: 2, L0600: 2, H0170: 1, H0171: 1, H0556: 1, T0002: 1, H0686: 1, S0114: 1, T0049: 1, S0001: 1, S0282: 1, H0663: 1, H0305: 1, S0356: 1, S0444: 1, H0329: 1, S0046: 1, L0717: 1, H0411: 1, H0550: 1, H0441: 1, H0370: 1, H0600: 1, S0005: 1, H0333: 1, H0331: 1,

| H0574: 1, T0082: 1, |
| H0122: 1, H0196: 1, |
| H0050: 1, L0471: 1, |
| H0057: 1, H0373: 1, |
| T0010: 1, H0510: 1, |
| H0416: 1, S0318: 1, |
| S0316: 1, S0214: 1, |
| H0644: 1, H0074: 1, |
| H0165: 1, H0168: 1, |
| H0169: 1, H0674: 1, |
| S0364: 1, H0708: 1, |
| H0598: 1, H0135: 1, |
| H0163: 1, H0591: 1, |
| H0264: 1, H0272: 1, |
| H0488: 1, H0413: 1, |
| H0056: 1, S0386: 1, |
| L0370: 1, T0041: 1, |
| S0014: 1, H0131: 1, |
| H0130: 1, H0647: 1, |
| S0344: 1, S0422: 1, |
| L0598: 1, L0640: 1, |
| L0770: 1, L0769: 1, |
| L0761: 1, L0772: 1, |
| L0643: 1, L0771: 1, |
| L0773: 1, L0766: 1, |
| L0775: 1, L0375: 1, |
| L0651: 1, L0806: 1, |
| L0653: 1, L0776: 1, |
| L0655: 1, L0656: 1, |
| L0809: 1, L0790: 1, |

HNOJH52	HNOJH52R	1305	3 - 200	3480		L0791: 1, L0664: 1, H0691: 1, H0689: 1, H0683: 1, H0435: 1, H0660: 1, H0648: 1, H0672: 1, H0539: 1, S0380: 1, H0710: 1, S0152: 1, S0013: 1, S0174: 1, H0478: 1, L0743: 1, L0750: 1, L0757: 1, S0031: 1, H0707: 1, L0588: 1, L0592: 1, L0599: 1, L0608: 1, L0604: 1, L0593: 1, H0668: 1, H0667: 1, S0192: 1, S0276: 1, H0422: 1, H0352: 1 and H0712: 1.
HNOJI82	HNOJI82R	1306	1 - 489	3481	Lys-36 to Gln-48, Gln-56 to Ser-72, Gly-82 to Val-105, Lys-114 to Lys-120, Ser-122 to Cys-133.	
HNOJI85	HNOJI85R	1307	1 - 552	3482	Ala-1 to Ser-6.	L0754: 5, L0731: 4, L0748: 3, L0750: 3, H0411: 2, H0012: 2, H0687: 2, H0644: 2, L0803: 2, H0550: 1, L0021: 1, H0599: 1, L0022: 1, H0042: 1,

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HNOJI20	HNOJI20R	1308	1 - 261	3483	H0575: 1, H0150: 1, H0620: 1, T0003: 1, H0673: 1, L0662: 1, L0650: 1, L0774: 1, L0375: 1, L0807: 1, L0515: 1, L0659: 1, L0666: 1, S0374: 1, H0694: 1, L0747: 1, L0749: 1, L0779: 1 and L0755: 1.	
HNOJI26	HNOJI26R	1309	2 - 385	3484	Lys-19 to Asn-25, Pro-61 to Lys-66.	
HNOJK66	HNOJK66R	1310	1 - 462	3485	Ser-27 to Gly-38, Ser-63 to Trp-72, Trp-79 to Asn-84, Arg-133 to Trp-139.	L0588: 14, S0046: 13, S0045: 12, T0049: 7, H0599: 7, L0662: 7, L0599: 7, H0427: 6, T0048: 6, H0575: 5, L0747: 5, H0254: 4, H0618: 4, H0617: 4, H0124: 4, H0413: 4, H0052: 3, H0024: 3, H0553: 3, H0269: 3, H0412: 3, H0056: 3, H0623: 3, L0764: 3, L0659: 3, L0809: 3, L0666: 3, L0750: 3, L0758: 3, L0600: 3, S0001: 2, H0255: 2, H0661: 2, H0619: 2,

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S6022: 2, H0587: 2, S0280: 2, H0253: 2, H0150: 2, H0050: 2, H0188: 2, H0644: 2, S0364: 2, S0036: 2, L0369: 2, L0768: 2, L0803: 2, L0775: 2, L0375: 2, L0783: 2, L0438: 2, L0743: 2, L0748: 2, L0439: 2, L0779: 2, L0604: 2, S6024: 1, L0785: 1, S0360: 1, H0208: 1, L0717: 1, H0437: 1, H0369: 1, H0549: 1, H0042: 1, H0309: 1, H0085: 1, H0263: 1, H0123: 1, S0050: 1, L0163: 1, H0266: 1, H0687: 1, H0039: 1, H0622: 1, H0030: 1, H0031: 1, H0163: 1, H0616: 1, H0063: 1, H0264: 1, H0268: 1, L0763: 1, L0536: 1, L0769: 1, L0638: 1, L0643: 1, L0648: 1, L0794: 1, L0804: 1, L0774: 1, L0651: 1, L0378: 1, L0806: 1,

HNOJL59	HNOJL59R	1311	204 - 479	3486	Glu-1 to Ser-9, Pro-60 to Gln-66.	L0555: 1, L0634: 1, L0788: 1, L0663: 1, L0665: 1, S0044: 1, S0190: 1, L0744: 1, L0749: 1, L0731: 1, H0445: 1, L0589: 1, L0361: 1, L0366: 1 and S0458: 1.
HNOJM64	HNOJM64R	1312	3 - 428	3487	Gly-105 to Glu-110, Ala-133 to Tyr-142.	
HNOJO55	HNOJO55R	1313	426 - 265	3488		
HNOJP42	HNOJP42R	1314	12 - 302	3489	Trp-42 to Glu-50.	
HNOJQ22	HNOJQ22R	1315	1 - 510	3490	Phe-164 to Leu-170.	
HNOKA20	HNOKA20R	1316	2 - 268	3491	Gln-30 to Gly-36, Lys-43 to Lys-54, Thr-73 to Ile-79.	
HNOKD74	HNOKD74R	1317	2 - 85	3492		
HNOKG34	HNOKG34R	1318	1 - 510	3493	Lys-17 to Leu-27, Thr-39 to Leu-44, Asp-62 to Gly-70, Arg-89 to Asp-94, Arg-102 to Gly-113, Lys-127 to Glu-132, Thr-152 to Arg-160.	
HNOKG69	HNOKG69R	1319	188 - 418	3494		
HNOKG71	HNOKG71R	1320	2 - 331	3495	Gly-8 to Ala-15, Leu-33 to His-50,	

HNOKH94	HNOKH94R	1321	214 - 411	3496	Phe-59 to Gly-64, Gly-70 to Gly-84. Thr-20 to Asp-27, His-39 to Thr-44.	L0666: 11, S0358: 8, L0752: 8, L0749: 5, L0362: 5, L0771: 4, L0803: 4, L0528: 4, L0664: 4, L0740: 4, L0754: 4, L0599: 4, L0769: 3, L0662: 3, L0657: 3, L0659: 3, L0663: 3, L0748: 3, L0750: 3, L0757: 3, L0758: 3, H0171: 2, S0360: 2, H0574: 2, H0251: 2, L0483: 2, H0412: 2, H0509: 2, L0770: 2, L0774: 2, L0775: 2, L0665: 2, H0690: 2, S0330: 2, L0755: 2, L0731: 2, L0595: 2, H0624: 1, H0170: 1, H0685: 1, H0656: 1, H0663: 1, H0305: 1, H0589: 1, S0356: 1, S0354: 1, H0580: 1, S0132: 1, S0300: 1, L0717: 1, H0331: 1, H0013: 1, H0108: 1, L0105: 1, H0052: 1, H0546: 1,

| HNOKI06 | HNOKI06R | 1322 | 3 - 419 | 3497 | Asp-36 to Glu-46, Gln-52 to Ile-61, Leu-76 to Lys-87, Asn-100 to Val-108, Ser-120 to Gln-128. | H0123: 1, H0024: 1, H0373: 1, H0266: 1, H0687: 1, L0142: 1, H0628: 1, H0673: 1, H0598: 1, H0038: 1, H0529: 1, L0763: 1, L0637: 1, L0761: 1, L0646: 1, L0641: 1, L0768: 1, L0804: 1, L0650: 1, L0776: 1, L0656: 1, L0526: 1, L0367: 1, S0374: 1, H0691: 1, H0519: 1, H0682: 1, H0684: 1, H0648: 1, L0602: 1, S0454: 1, L0439: 1, L0747: 1, L0779: 1, L0780: 1, L0753: 1, L0759: 1, S0434: 1, L0591: 1, L0592: 1, L0608: 1, L0366: 1, S0194: 1 and H0542: 1. S0410: 13, L0766: 5, H0657: 4, S0422: 4, H0547: 4, S0408: 3, L0758: 3, S0444: 2, H0587: 2, H0486: 2, H0013: 2, H0581: 2, L0471: 2, L0764: 2, L0794: 2, L0666: 2, |

HNOKI89	HNOKI89R	1323	2 - 370	3498	Glu-1 to Pro-7, Asp-25 to Leu-31, Arg-54 to Lys-73.	L0663: 2, H0520: 2, H0660: 2, H0436: 2, L0740: 2, L0751: 2, H0445: 2, S0436: 2, S0400: 1, H0351: 1, H0411: 1, H0632: 1, H0575: 1, S0010: 1, H0318: 1, H0596: 1, T0110: 1, H0545: 1, H0046: 1, H0567: 1, H0373: 1, S6028: 1, H0687: 1, H0031: 1, H0553: 1, H0617: 1, H0264: 1, S0386: 1, S0440: 1, H0646: 1, L0761: 1, L0646: 1, L0771: 1, L0662: 1, L0774: 1, L0805: 1, L0653: 1, L0655: 1, L0664: 1, H0519: 1, H0521: 1, H0478: 1, L0756: 1, L0752: 1, L0759: 1, S0434: 1, L0362: 1, S0192: 1 and H0543: 1.
HNOKN33	HNOKN33R	1324	57 - 284	3499	Pro-7 to Gly-20.	L0751: 9, H0556: 8, H0617: 8, L0777: 6,

L0809: 5, L0741: 5,
L0754: 5, L0779: 5,
S0222: 4, L0769: 4,
L0659: 4, L0438: 4,
L0748: 4, H0208: 3,
H0052: 3, H0009: 3,
S0051: 3, T0010: 3,
H0521: 3, L0747: 3,
L0731: 3, L0758: 3,
S0408: 2, S0476: 2,
H0575: 2, H0253: 2,
H0545: 2, H0687: 2,
H0615: 2, H0181: 2,
H0135: 2, H0494: 2,
L5566: 2, L0666: 2,
L0664: 2, L0565: 2,
H0445: 2, S6024: 1,
S0134: 1, S0001: 1,
S0282: 1, S0400: 1,
H0459: 1, S0354: 1,
S0360: 1, H0580: 1,
S0007: 1, H0639: 1,
S0278: 1, H0441: 1,
H0370: 1, H0438: 1,
S0280: 1, H0036: 1,
H0618: 1, S0049: 1,
H0196: 1, H0235: 1,
H0597: 1, H0231: 1,
H0327: 1, H0566: 1,
H0024: 1, L0163: 1,

HNOKO45	HNOKO45R	1325	67 - 171	3500		
					H0594: 1, H0424: 1, H0213: 1, H0030: 1, H0031: 1, H0598: 1, H0100: 1, L0351: 1, H0560: 1, H0625: 1, H0561: 1, H0633: 1, S0144: 1, S0002: 1, S0426: 1, L0763: 1, L0770: 1, L0772: 1, L0372: 1, L0645: 1, L0662: 1, L0767: 1, L0651: 1, L0378: 1, L0776: 1, L0657: 1, L0783: 1, L0382: 1, L0663: 1, S0052: 1, H0520: 1, H0547: 1, H0670: 1, S0378: 1, S0380: 1, H0522: 1, H0555: 1, S3014: 1, L0743: 1, L0756: 1, L0753: 1, L0759: 1, S0031: 1, S0434: 1, L0581: 1, L0595: 1, L0366: 1 and H0423: 1.	L0665: 14, L0666: 13, L0662: 10, L0659: 10, L0646: 9, L0655: 7, L0663: 7, H0648: 7, L0775: 6, L0717: 5, L0657: 5, H0436: 5,

L0756: 5, L0731: 5, L0766: 4, L0748: 4, S0212: 3, L0598: 3, L0637: 3, L0761: 3, L0664: 3, H0658: 3, L0742: 3, L0439: 3, L0747: 3, L0750: 3, L0755: 3, L0758: 3, L0604: 3, L0595: 3, H0686: 2, L0002: 2, S0376: 2, S0360: 2, S6026: 2, H0351: 2, S0222: 2, H0455: 2, L0471: 2, H0014: 2, T0006: 2, S0440: 2, S0422: 2, L0667: 2, L0641: 2, L0764: 2, L0768: 2, L0774: 2, L0776: 2, L0527: 2, L0636: 2, L0783: 2, S0374: 2, H0539: 2, L0749: 2, L0596: 2, L0589: 2, L0591: 2, L0592: 2, L0599: 2, L0594: 2, L0362: 2, H0170: 1, S0218: 1, H0657: 1, H0656: 1, L0808: 1, S0400: 1, H0402: 1, S0442: 1, S0444: 1, S0408: 1,

H0549: 1, H0441: 1,
H0415: 1, H0587: 1,
L0622: 1, H0486: 1,
T0039: 1, H0156: 1,
H0318: 1, H0173: 1,
H0196: 1, H0597: 1,
L0041: 1, H0011: 1,
H0057: 1, H0373: 1,
H0051: 1, S0051: 1,
T0010: 1, H0399: 1,
H0061: 1, H0687: 1,
H0328: 1, L0055: 1,
H0673: 1, H0551: 1,
H0413: 1, T0041: 1,
H0649: 1, UNKWN: 1,
L0762: 1, L0763: 1,
L0371: 1, L0769: 1,
L0373: 1, L0521: 1,
L0364: 1, L0649: 1,
L0803: 1, L0650: 1,
L0378: 1, L0653: 1,
L0606: 1, L0607: 1,
L0661: 1, L0512: 1,
L0656: 1, L4669: 1,
L0517: 1, L0526: 1,
L0809: 1, L0647: 1,
L2269: 1, L0438: 1,
H0519: 1, H0659: 1,
H0660: 1, H0651: 1,
S0328: 1, S0380: 1,

HNOKT24	HNOKT24R	1326	98 - 457	3501	Lys-1 to Glu-6, Pro-8 to Gln-21, Ser-43 to Glu-51, Val-61 to Gly-68, Arg-75 to Pro-87, Ser-92 to Phe-98.	H0710: 1, H0579: 1, S0404: 1, S0406: 1, L0740: 1, L0754: 1, L0777: 1, L0759: 1, S0308: 1, L0605: 1, L0581: 1, L0608: 1, L0601: 1, H0543: 1, S0412: 1, S0424: 1 and H0506: 1.
HNOKU52	HNOKU52R	1327	3 - 509	3502	Lys-13 to Ser-41, Lys-57 to Lys-66, Lys-89 to Lys-97, Lys-113 to Ala-118, Pro-131 to Ala-147, Ala-159 to Ala-169.	
HNOKV82	HNOKV82R	1328	3 - 488	3503	Lys-24 to Lys-31, Gly-132 to Glu-137.	
HNOKZ03	HNOKZ03R	1329	216 - 401	3504		H0624: 10, S0192: 8, S0022: 7, S0212: 5, H0031: 4, H0412: 4, S0028: 4, L0747: 4, S0194: 4, H0717: 3, H0427: 3, L0471: 3, S0250: 3, H0039: 3,

H0644: 3, H0040: 3, H0059: 3, H0144: 3, H0547: 3, S0126: 3, S0037: 3, S0027: 3, S0206: 3, L0439: 3, H0713: 2, H0661: 2, S0360: 2, H0208: 2, S0045: 2, S0046: 2, H0587: 2, H0486: 2, H0575: 2, H0024: 2, H0266: 2, H0622: 2, H0551: 2, S0210: 2, H0520: 2, L0740: 2, L0731: 2, L0605: 2, H0170: 1, H0171: 1, S0040: 1, H0716: 1, H0294: 1, S0116: 1, S0420: 1, S0442: 1, H0619: 1, S0300: 1, H0592: 1, H0586: 1, H0485: 1, H0156: 1, H0590: 1, S0474: 1, S0049: 1, H0596: 1, H0544: 1, H0045: 1, H0012: 1, H0620: 1, H0014: 1, T0010: 1, H0687: 1, S0003: 1, H0615: 1, H0030: 1, S0364: 1, S0366: 1, H0090: 1, H0038: 1,

HNORA56	HNORA56R	1330	2 - 595	3505		H0272: 1, H0334: 1, S0150: 1, L0598: 1, L0767: 1, L0766: 1, L0791: 1, L0792: 1, L0665: 1, T0068: 1, L0438: 1, H0660: 1, S3014: 1, L0744: 1, L0754: 1, L0749: 1, L0757: 1, L0759: 1, L0588: 1, L0589: 1, L0591: 1, L0592: 1, S0011: 1, H0665: 1, H0667: 1 and H0506: 1.
HNORB68	HNORB68R	1331	1 - 210	3506	Leu-24 to Thr-39, Gln-70 to Glu-81, Arg-86 to Leu-98, Glu-104 to Pro-110, Pro-134 to Arg-157, Val-159 to Asn-166.	
HNORC14	HNORC14R	1332	2 - 499	3507	Gly-1 to Ser-22, Pro-29 to Lys-70.	S0412: 22, L0662: 19, L0777: 14, S0010: 11, S0222: 9, S6028: 9, L0750: 9, T0010: 8, L0659: 8, L0747: 8, L0756: 8, L0663: 7, L0439: 7, H0051: 6, L0518: 6, L0754: 6, L0752: 6, S0280: 5,

H0575: 5, S0358: 4, S0346: 4, L0753: 4, H0170: 3, H0662: 3, S0360: 3, H0427: 3, L0471: 3, H0373: 3, L0638: 3, L0637: 3, L0764: 3, L0774: 3, L0809: 3, L0666: 3, S0310: 3, H0672: 3, H0696: 3, L0731: 3, H0506: 3, H0713: 2, S0408: 2, H0411: 2, H0455: 2, H0574: 2, S0414: 2, H0486: 2, H0036: 2, S0049: 2, H0052: 2, H0327: 2, H0687: 2, H0428: 2, H0553: 2, H0644: 2, H0038: 2, L0520: 2, L0762: 2, L0770: 2, L0653: 2, L0517: 2, S0044: 2, L0442: 1, H0583: 1, L0443: 1, S0110: 1, S0282: 1, S0400: 1, H0661: 1, S0348: 1, S0356: 1, S0444: 1, H0329: 1, S0007: 1, H0619: 1, S6026: 1, S0300: 1, L0717: 1, S6022: 1,

| H0550: 1, H0592: 1, |
| H0587: 1, H0599: 1, |
| H0042: 1, H0590: 1, |
| H0318: 1, H0309: 1, |
| H0545: 1, H0563: 1, |
| H0564: 1, H0123: 1, |
| H0019: 1, S0050: 1, |
| L0163: 1, S0388: 1, |
| H0356: 1, H0328: 1, |
| H0688: 1, H0039: 1, |
| T0023: 1, H0031: 1, |
| H0111: 1, H0169: 1, |
| S0364: 1, L0455: 1, |
| H0135: 1, H0163: 1, |
| T0067: 1, T0069: 1, |
| T0004: 1, H0100: 1, |
| S0112: 1, L0370: 1, |
| L0598: 1, L0769: 1, |
| L0630: 1, L0800: 1, |
| L0648: 1, L0363: 1, |
| L0768: 1, L0649: 1, |
| L0803: 1, L0775: 1, |
| L0375: 1, L0651: 1, |
| L0784: 1, L0523: 1, |
| L0805: 1, L0776: 1, |
| L0527: 1, L0657: 1, |
| L0635: 1, L0783: 1, |
| L0789: 1, L0532: 1, |
| L0664: 1, H0691: 1, |
| T0068: 1, S0148: 1, |

HNORD11	HNORD11R	1333	155 - 430	3508		H0693: 1, H0520: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, S0380: 1, S0174: 1, H0555: 1, L0612: 1, L0743: 1, L0748: 1, L0751: 1, L0749: 1, L0779: 1, L0759: 1, H0689: 1, S0434: 1, L0604: 1, L0366: 1, S0106: 1 and S0021: 1.
HNORE65	HNORE65R	1334	2 - 436	3509	Ala-24 to Lys-29, Lys-51 to Gly-62.	H0585: 20, H0641: 14, H0521: 9, H0141: 5, H0031: 5, H0422: 5, H0644: 4, L0755: 4, H0295: 3, H0638: 3, S0376: 3, H0544: 3, S0440: 3, H0689: 3, H0690: 3, L0757: 3, H0657: 2, S0360: 2, H0586: 2, H0581: 2, H0063: 2, S0144: 2, L0662: 2, H0691: 2, H0520: 2, S0126: 2, H0522: 2, L0740: 2, L0777: 2, H0423: 2, S0298: 1, H0306: 1, S0132: 1, S0278: 1, H0549: 1, S0222: 1,

| HNORF03 | HNORF03R | 1335 | 37 - 387 | 3510 | Pro-19 to His-36, Glu-68 to Ala-86. | H0587: 1, H0333: 1, H0575: 1, H0706: 1, H0052: 1, H0309: 1, H0596: 1, H0546: 1, H0545: 1, H0086: 1, H0009: 1, H0284: 1, T0023: 1, L0143: 1, H0551: 1, H0494: 1, S0438: 1, S0002: 1, L0371: 1, L0770: 1, L0769: 1, L0667: 1, L0372: 1, L0646: 1, L0553: 1, L0771: 1, L0774: 1, L0375: 1, L0806: 1, L0382: 1, H0703: 1, H0593: 1, H0682: 1, S0328: 1, S0380: 1, H0555: 1, S0027: 1, L0742: 1, L0747: 1, L0779: 1, L0753: 1, H0445: 1 and H0543: 1. | L0439: 6, L0794: 2, L0665: 2, H0691: 2, L0717: 1, H0068: 1, L0761: 1, L0646: 1, L0773: 1, L0662: 1, L0790: 1, L0663: 1, L0438: 1, L0748: 1, L0758: 1, L0592: 1 and |

HNORF04	HNORF04R	1336	1 - 168	3511			
HNORF05	HNORF05R	1337	2 - 334	3512	Thr-2 to Phe-7, Gly-18 to Arg-23, Asp-27 to Glu-35.		
HNORF13	HNORF13R	1338	1 - 636	3513	Gly-1 to Thr-10.		
HNORH03	HNORH03R	1339	3 - 680	3514		L0608: 1.	S0358: 7, L0750: 7, S0360: 6, H0617: 5, S0126: 4, H0545: 3, L0776: 3, S0374: 3, L0748: 3, L0755: 3, L0588: 3, H0422: 3, H0685: 2, H0549: 2, H0550: 2, H0632: 2, H0546: 2, H0424: 2, H0163: 2, H0551: 2, L0665: 2, H0593: 2, H0660: 2, S0330: 2, L0747: 2, L0749: 2, L0777: 2, L0757: 2, S0031: 2, H0556: 1, H0686: 1, H0295: 1, S0430: 1, H0657: 1, H0341: 1, H0662: 1, S0278: 1, H0282: 1, H0592: 1, H0586: 1, H0486: 1, T0039: 1, T0109: 1, H0004: 1, H0581: 1, H0309: 1, H0596: 1, T0110: 1,

| HNORH05 | HNORH05R | 1340 | 1 - 498 | 3515 | Arg-13 to Arg-21, Asp-26 to Pro-35, | H0231: 1, H0123: 1, H0620: 1, H0083: 1, H0594: 1, H0687: 1, L0483: 1, H0644: 1, H0361: 1, H0087: 1, H0413: 1, H0059: 1, H0494: 1, S0306: 1, S0440: 1, H0509: 1, H0529: 1, L0762: 1, L0770: 1, L0769: 1, L0372: 1, L0764: 1, L0771: 1, L0773: 1, L0775: 1, L0375: 1, L0556: 1, L0655: 1, L0807: 1, L0656: 1, L0659: 1, L0540: 1, L0783: 1, L0384: 1, S0216: 1, H0144: 1, H0691: 1, H0690: 1, H0684: 1, H0658: 1, H0670: 1, H0672: 1, S0328: 1, S0378: 1, S0380: 1, H0518: 1, H0555: 1, S3014: 1, S0032: 1, L0741: 1, H0445: 1, L0596: 1, S0192: 1, S0194: 1, S0460: 1 and H0352: 1. |

					Glu-58 to Gly-65, Ser-74 to Pro-82, Gln-107 to Asp-115, Asp-128 to Asn-137, Gln-145 to Arg-154, Gln-161 to Ser-166.	
HNORH35	HNORH35R	1341	20 - 244	3516	Ala-19 to Ser-27, Ser-41 to Val-53.	
HNORJ08	HNORJ08R	1342	3 - 377	3517	Asn-95 to Leu-100.	
HNTRB70	HNTRB70R	1343	144 - 377	3518	Pro-3 to Ile-12, Asn-20 to Glu-25.	
HOCMA02	HOCMA02RA	1344	3 - 530	3519	Ile-121 to Val-129, Ala-136 to Glu-142.	L0742: 10, H0144: 6, H0265: 5, S0116: 4, S0046: 4, S0222: 4, H0556: 3, H0250: 3, H0052: 3, S0027: 3, L0595: 3, S0212: 2, H0306: 2, S0358: 2, H0013: 2, H0618: 2, H0124: 2, H0100: 2, S0053: 2, H0660: 2, S0330: 2, S3012: 2, L0748: 2, L0439: 2, L0745: 2, L0757: 2, H0445: 2, S0342: 1, H0484: 1, H0638: 1, S0007: 1, H0393: 1, H0437: 1, H0549: 1, H0438: 1, H0486: 1,

HOCMB45	HOCMB45RA	1345	347 - 541	3520	Asn-39 to Gln-44, Leu-47 to Asp-55.	H0253: 1, H0390: 1, H0544: 1, H0046: 1, H0009: 1, H0023: 1, N0007: 1, T0010: 1, H0188: 1, H0687: 1, S0003: 1, H0030: 1, S0364: 1, L0455: 1, S0366: 1, H0090: 1, H0038: 1, H0551: 1, H0412: 1, H0059: 1, S0038: 1, H0130: 1, H0641: 1, S0142: 1, S0002: 1, H0517: 1, L0643: 1, L0771: 1, L0794: 1, L0766: 1, L0775: 1, L0654: 1, L0655: 1, L0352: 1, S0008: 1, H0435: 1, H0659: 1, H0658: 1, H0672: 1, H0521: 1, H0522: 1, S0044: 1, H0576: 1, L0779: 1, L0605: 1, L0593: 1, S0026: 1, H0667: 1, S0276: 1, S0196: 1, H0542: 1, H0423: 1 and H0506: 1. L0439: 17, L0438: 6, H0424: 5, S0007: 4, L0769: 4, H0213: 3,

HOCMB65	HOCMB65R A	1346	241 - 456	3521	L0776: 3, H0660: 3, H0309: 2, S0051: 2, L0789: 2, L0663: 2, L0750: 2, L0757: 2, L0759: 2, S0196: 2, S0040: 1, S0001: 1, H0662: 1, H0402: 1, L0005: 1, S0356: 1, H0052: 1, H0596: 1, H0009: 1, T0010: 1, L0483: 1, T0006: 1, H0033: 1, H0031: 1, H0169: 1, H0634: 1, H0538: 1, L0638: 1, L0643: 1, L0764: 1, L0768: 1, L0803: 1, L0804: 1, L0375: 1, L0606: 1, L0659: 1, L0791: 1, L0352: 1, H0547: 1, L0602: 1, H0436: 1, L0742: 1, L0749: 1, L0777: 1, L0752: 1, L0731: 1, L0758: 1, S0394: 1, L0596: 1 and S0412: 1.
HOCMC08	HOCMC08R	1347	1 - 426	3522	Lys-18 to Tyr-31, Ile-45 to Asp-50, Trp-78 to Ser-88,

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HOCMF06	HOCMF06R	1348	382 - 588		3523	Pro-102 to Pro-109.
HOCMF27	HOCMF27R	1349	3 - 395		3524	Glu-1 to Ile-6, Asp-125 to Pro-131.

L0748: 26, H0046: 18, H0510: 7, H0673: 7, L0803: 7, H0169: 6, H0144: 6, L0731: 4, H0574: 3, H0521: 3, H0370: 2, H0615: 2, H0032: 2, T0067: 2, H0509: 2, S0210: 2, L0776: 2, L0749: 2, L0750: 2, L0595: 2, H0170: 1, H0656: 1, H0341: 1, H0151: 1, S0046: 1, S0132: 1, H0619: 1, H0351: 1, S0222: 1, H0497: 1, H0632: 1, H0486: 1, H0156: 1, H0575: 1, H0052: 1, H0596: 1, H0057: 1, H0014: 1, H0355: 1, H0286: 1, H0622: 1, H0165: 1, H0674: 1, H0212: 1, H0038: 1, H0379: 1, H0059: 1, T0041: 1, S0448: 1, H0132: 1, S0150: 1, L0646: 1, L0774: 1, L0527: 1, L0657: 1, L0809: 1,

HOCMF50	HOCMF50RB	1350	49 - 354	3525	Gly-2 to Lys-9, Arg-21 to Glu-32, Pro-58 to Lys-64, Thr-73 to Glu-83.	L0519: 1, L0788: 1, L0789: 1, L0666: 1, H0520: 1, H0519: 1, H0658: 1, H0660: 1, S0152: 1, S0013: 1, H0696: 1, S0044: 1, S0174: 1, S0146: 1, H0479: 1, L0744: 1, L0777: 1, L0758: 1, L0581: 1, L0608: 1, L0593: 1 and H0136: 1.	H0687: 1, L0663: 1 and H0660: 1.
HOCMF54	HOCMF54R	1351	37 - 285	3526	Lys-1 to Thr-6, Ala-26 to Gly-36, Ser-47 to Gln-55, Leu-72 to Cys-83.	L0794: 7, L0666: 4, L0750: 3, L0664: 2, L0665: 2, H0670: 2, H0660: 2, L0439: 2, L0751: 2, L0756: 2, H0650: 1, H0150: 1, L0769: 1, L0803: 1, L0378: 1, L0657: 1, H0684: 1 and H0555: 1.	
HOCMG37	HOCMG37R	1352	1 - 456	3527	Gly-1 to Asn-9, Glu-31 to Val-39.	H0657: 13, S0360: 12, S0026: 7, H0547: 6, H0171: 4, S0356: 4, H0551: 4, H0560: 4, H0509: 4, H0689: 4, H0543: 4, S0358: 3,	

H0318: 3, S0440: 3, H0529: 3, H0435: 3, H0665: 3, H0170: 2, H0265: 2, H0556: 2, H0222: 2, S0376: 2, L0717: 2, H0642: 2, H0574: 2, H0575: 2, H0596: 2, S0003: 2, H0615: 2, H0428: 2, H0617: 2, H0413: 2, H0494: 2, H0646: 2, L0369: 2, H0144: 2, H0520: 2, H0519: 2, H0690: 2, H0658: 2, H0660: 2, H0672: 2, L0362: 2, H0542: 2, H0423: 2, H0686: 1, H0650: 1, H0656: 1, S0212: 1, S0029: 1, H0483: 1, H0663: 1, H0664: 1, H0638: 1, S0420: 1, H0580: 1, S0278: 1, H0261: 1, H0438: 1, H0586: 1, T0060: 1, H0069: 1, S0010: 1, H0263: 1, H0327: 1, H0546: 1, H0014: 1, H0083: 1, H0510: 1, S6028: 1, H0266: 1, S0214: 1,

HOCMI62	HOCMI62R	1353	49 - 348	3528	H0553: 1, H0068: 1, H0090: 1, H0040: 1, H0634: 1, T0067: 1, H0079: 1, H0561: 1, L0065: 1, H0130: 1, H0647: 1, S0422: 1, L0772: 1, L0648: 1, L0662: 1, L0768: 1, L0375: 1, L0657: 1, L0659: 1, L0518: 1, S0310: 1, L0438: 1, H0670: 1, H0648: 1, S0380: 1, H0521: 1, H0436: 1, L0439: 1, L0749: 1, L0756: 1, L0779: 1, L0731: 1, H0343: 1, L0596: 1, L0588: 1, L0590: 1, L0591: 1, L0603: 1, H0653: 1, S0196: 1, H0422: 1, S0424: 1, S0384: 1 and H0506: 1.
HOCMJ47	HOCMJ47R	1354	1 - 510	3529	Lys-23 to Ser-29, Tyr-55 to His-62, Tyr-65 to Leu-71.
HOCMK20	HOCMK20R	1355	14 - 400	3530	Glu-32 to Ser-38.
HOCML06	HOCML06R	1356	3 - 707	3531	Gly-1 to Arg-9.
HOCML66	HOCML66R	1357	2 - 289	3532	L0748: 2, S6028: 1, H0682: 1, H0660: 1.

HOCMM52	HOCMM52R	1358	130 - 594	3533		S0378: 1 and H0506: 1.
HOCMO50	HOCMO50R	1359	3 - 425	3534	Thr-19 to Cys-25, Lys-133 to Ala-138.	
HOCMS75	HOCMS75R	1360	3 - 500	3535		H0295: 8, H0617: 7, L0665: 7, H0435: 7, H0592: 6, H0494: 6, L0439: 6, L0751: 6, S0360: 5, S0046: 4, H0587: 4, H0012: 4, H0264: 4, L0662: 4, S0406: 4, H0586: 3, H0620: 3, H0031: 3, H0551: 3, S0440: 3, S0002: 3, L0763: 3, L0648: 3, L0649: 3, L0774: 3, L0659: 3, H0520: 3, H0547: 3, H0689: 3, H0660: 3, S0328: 3, S0330: 3, L0748: 3, L0754: 3, L0750: 3, H0294: 2, H0650: 2, H0341: 2, S0356: 2, S0132: 2, H0370: 2, H0333: 2, H0643: 2, L0623: 2, H0706: 2, H0081: 2, H0039: 2, H0553: 2, H0181: 2, H0068: 2, H0135: 2, H0040: 2,

H0646: 2, L0640: 2, L0637: 2, L0641: 2, L0764: 2, L0804: 2, L0806: 2, L0776: 2, L0657: 2, L0809: 2, L0664: 2, H0519: 2, H0682: 2, H0670: 2, H0672: 2, L0744: 2, L0740: 2, S0434: 2, H0677: 2, H0483: 1, H0305: 1, H0638: 1, S0442: 1, S0358: 1, S0376: 1, S0410: 1, H0411: 1, H0550: 1, H0455: 1, H0600: 1, H0101: 1, H0575: 1, H0590: 1, H0618: 1, H0052: 1, H0234: 1, H0597: 1, H0121: 1, L0041: 1, H0123: 1, H0246: 1, H0290: 1, H0292: 1, H0428: 1, H0622: 1, T0023: 1, H0030: 1, H0316: 1, H0059: 1, H0100: 1, S0306: 1, T0090: 1, H0649: 1, S0210: 1, S0426: 1, L0646: 1, L0765: 1, L0771: 1, L0626: 1, L0768: 1,

HOCMS87	HOCMS87R	1361	145 - 636	3536	Pro-84 to Pro-91.	L0364: 1, L0766: 1, L0375: 1, L0651: 1, L0378: 1, L0653: 1, L0655: 1, L0558: 1, L0635: 1, L0518: 1, L0383: 1, L0792: 1, L0663: 1, S0006: 1, H0696: 1, S0044: 1, S3014: 1, L0743: 1, L0752: 1, L0755: 1, L0731: 1, L0759: 1, H0216: 1, H0543: 1, S0424: 1 and H0506: 1.
						L0743: 9, H0551: 5, H0645: 4, H0050: 4, S0250: 4, S0192: 4, H0624: 3, T0039: 3, H0087: 3, H0547: 3, L0439: 3, H0294: 2, H0370: 2, T0040: 2, H0620: 2, H0024: 2, H0622: 2, H0424: 2, H0031: 2, H0063: 2, L0662: 2, L0776: 2, S0028: 2, L0757: 2, S0242: 2, S0116: 1, H0484: 1, H0483: 1, S0360: 1, H0619: 1, H0550: 1, H0586: 1, H0497: 1, H0486: 1,

HOCMX29	HOCMX29R	1362	86 - 235	3537	H0599: 1, H0575: 1, H0122: 1, H0706: 1, H0421: 1, S0049: 1, H0086: 1, H0123: 1, H0081: 1, H0012: 1, H0687: 1, H0028: 1, H0604: 1, S0386: 1, L0772: 1, L0648: 1, L0803: 1, L0774: 1, L0375: 1, L0789: 1, L0532: 1, L0663: 1, T0068: 1, S0126: 1, H0684: 1, H0660: 1, S0152: 1, S0027: 1, L0747: 1, L0749: 1, L0779: 1, L0777: 1, S0194: 1 and H0506: 1.
HOCMY53	HOCMY53R	1363	76 - 354	3538	Glu-1 to Gly-6, Leu-27 to Val-40, Glu-60 to Asn-67.
HOCMY61	HOCMY61R	1364	2 - 466	3539	
HOCMY79	HOCMY79R	1365	314 - 511	3540	Gly-17 to Arg-42, Phe-56 to Ser-66.
HOCOC38	HOCOC38R	1366	394 - 2	3541	Lys-1 to His-6.
HOCOC41	HOCOC41R	1367	520 - 789	3542	Lys-7 to Glu-13, Gly-39 to Thr-44, Gly-82 to Ile-89, Glu-98 to Asn-105.
HOCOC94	HOCOC94R	1368	3 - 488	3543	L0777: 14, L0731: 10, L0740: 8, L0439: 7, L0754: 6, S0222: 5, L0745: 5, H0144: 5,

H0013: 4, L0770: 4, S0380: 4, L0748: 4, L0758: 4, H0171: 3, H0599: 3, S0010: 3, H0052: 3, S0003: 3, H0615: 3, L0598: 3, L0666: 3, L0665: 3, H0519: 3, H0658: 3, L0749: 3, H0255: 2, S0376: 2, S0444: 2, S0360: 2, H0632: 2, H0327: 2, S0214: 2, H0038: 2, H0040: 2, L0769: 2, L0638: 2, L0662: 2, L0794: 2, L0775: 2, L0776: 2, H0660: 2, S0330: 2, L0744: 2, L0750: 2, L0756: 2, L0757: 2, L0362: 2, L0361: 2, H0170: 1, H0685: 1, S0040: 1, S0342: 1, H0716: 1, S0001: 1, S0282: 1, H0662: 1, S0356: 1, S0358: 1, H0675: 1, S0408: 1, H0580: 1, S0300: 1, H0406: 1, S0278: 1, H0550: 1, H0441: 1, H0431: 1, H0600: 1,

H0331: 1, H0574: 1, T0039: 1, H0156: 1, S0665: 1, S0346: 1, H0263: 1, H0596: 1, H0546: 1, H0150: 1, H0009: 1, H0569: 1, L0471: 1, H0012: 1, H0051: 1, S0051: 1, T0010: 1, H0266: 1, S0250: 1, S0022: 1, H0428: 1, H0119: 1, H0553: 1, H0628: 1, H0617: 1, H0316: 1, H0634: 1, H0412: 1, H0413: 1, H0623: 1, H0494: 1, S0450: 1, H0130: 1, S0142: 1, UNKWN: 1, L0771: 1, L0766: 1, L0803: 1, L0804: 1, L0774: 1, L0784: 1, L0805: 1, L0652: 1, L0653: 1, L0655: 1, L0606: 1, L0527: 1, L0783: 1, L0663: 1, H0547: 1, H0689: 1, H0670: 1, H0648: 1, H0539: 1, H0521: 1, H0696: 1, H0478: 1, S0432: 1, H0540: 1, S0028: 1,

HOCOF35	HOCOF35R	1369	221 - 502	3544	Pro-6 to Arg-12, Gln-17 to Leu-22, His-25 to Asp-32, Gly-62 to Lys-69.	S0206: 1, L0746: 1, L0747: 1, S0031: 1, L0689: 1, S0436: 1, S0194: 1, S0276: 1, S0412: 1, H0506: 1 and H0352: 1.
HOCOF50	HOCOF50R	1370	2 - 409	3545	Thr-16 to Phe-28, Cys-58 to Ser-69, Glu-91 to Glu-99, Lys-113 to Gln-119.	
HOCOO62	HOCOO62R	1371	9 - 539	3546	Gln-37 to Trp-44, Arg-47 to Phe-57, Phe-67 to Ala-83, Pro-94 to Gly-99, Lys-109 to Cys-116, Arg-130 to Ser-137.	
HOCOP52	HOCOP52R	1372	2 - 382	3547	Glu-1 to Val-9.	
HOCOQ13	HOCOQ13R	1373	46 - 492	3548		H0521: 5, S0040: 3, H0039: 3, H0657: 2, H0341: 2, H0553: 2, S0210: 2, H0593: 2, H0445: 2, L0596: 2, S0212: 1, H0661: 1, S0418: 1, S0354: 1, S0358: 1, H0592: 1, T0039: 1, H0635: 1.

HOCOQ93	HOCOQ93R	1374	448 - 639	3549	H0427: 1, H0544: 1, H0546: 1, H0545: 1, H0046: 1, L0471: 1, H0083: 1, S6028: 1, S0338: 1, S0003: 1, H0068: 1, H0038: 1, H0063: 1, H0551: 1, H0100: 1, T0042: 1, H0494: 1, H0561: 1, H0646: 1, L0800: 1, L0649: 1, L0654: 1, L0666: 1, H0660: 1, H0518: 1, S0152: 1, S0146: 1, H0555: 1, S0037: 1, S0028: 1, L0605: 1, L0599: 1, L0603: 1, H0667: 1, H0542: 1, H0543: 1, S0424: 1 and H0506: 1.
HOCOT70	HOCOT70R	1375	2 - 412	3550	
HOCOV29	HOCOV29R	1376	107 - 268	3551	Lys-9 to Asp-16, Thr-27 to Trp-36.
HOCPF69	HOCPF69R	1377	1 - 573	3552	
HOCPG38	HOCPG38R	1378	1 - 183	3553	Pro-38 to Gln-43.
					H0046: 5, H0144: 5, L0665: 4, L0662: 3, L0750: 3, L0766: 3, L0779: 3, L0759: 3, H0170: 2, S0376: 2, H0329: 2, H0427: 2,

L0770: 2, L0529: 2,
L0439: 2, L0740: 2,
L0751: 2, L0758: 2,
S0242: 2, H0223: 1,
H0685: 1, S0116: 1,
S0282: 1, H0662: 1,
S6022: 1, H0574: 1,
H0486: 1, H0013: 1,
H0098: 1, H0575: 1,
H0581: 1, H0052: 1,
L0471: 1, H0024: 1,
H0510: 1, H0594: 1,
H0328: 1, H0169: 1,
H0598: 1, H0163: 1,
H0646: 1, L0637: 1,
L0768: 1, L0794: 1,
L0804: 1, L0775: 1,
L0653: 1, L0659: 1,
L0526: 1, L0783: 1,
L0809: 1, L0544: 1,
L0647: 1, L0666: 1,
L0664: 1, S0374: 1,
L0438: 1, H0519: 1,
H0670: 1, H0660: 1,
H0648: 1, S0378: 1,
H0696: 1, S0432: 1,
L0777: 1, L0755: 1,
S0308: 1, L0591: 1,
L0608: 1, S0192: 1,
S0194: 1, H0543: 1,

| HOCPG48 | HOCPG48R | 1379 | 39 - 185 | 3554 | | H0423: 1 and S0412: 1. |
| HOCPH40 | HOCPH40R | 1380 | 2 - 217 | 3555 | Leu-9 to Val-14, Glu-41 to Ala-49. | L0731: 7, S0358: 6, L0439: 6, L0769: 5, L0809: 4, L0747: 4, S0354: 3, H0580: 3, H0438: 3, H0581: 3, L0770: 3, L0766: 3, L0774: 3, L0775: 3, L0740: 3, L0749: 3, L0758: 3, L0596: 3, H0677: 3, H0392: 2, H0457: 2, L0471: 2, H0510: 2, H0169: 2, H0551: 2, T0042: 2, H0494: 2, S0438: 2, L0761: 2, L0657: 2, L0783: 2, L0647: 2, L0666: 2, L0565: 2, L0438: 2, H0521: 2, L0748: 2, L0750: 2, L0779: 2, L0752: 2, L0759: 2, L0588: 2, L0605: 2, L0592: 2, L0581: 2, L0615: 1, S0116: 1, H0638: 1, S0418: 1, S0444: 1, S0360: 1, S0222: 1, H0586: 1, H0427: 1, H0618: 1, H0390: 1, |

HOCPH44	HOCPH44R	1381	3 - 281	3556	Gly-18 to Asp-23, Gln-34 to Gly-40, Asp-81 to Lys-87.	H0318: 1, H0007: 1, H0052: 1, H0544: 1, H0024: 1, H0014: 1, H0083: 1, H0375: 1, S6028: 1, H0266: 1, H0398: 1, L0055: 1, H0135: 1, H0087: 1, S0344: 1, S0426: 1, H0529: 1, L0763: 1, L0639: 1, L0374: 1, L0764: 1, L0662: 1, L0768: 1, L0803: 1, L0378: 1, L0776: 1, L0659: 1, L0518: 1, L0663: 1, L0665: 1, S0374: 1, H0547: 1, H0519: 1, H0593: 1, H0690: 1, H0682: 1, H0660: 1, S0328: 1, H0539: 1, H0555: 1, L0743: 1, L0777: 1, H0445: 1, L0362: 1, S0242: 1 and H0543: 1.
HOCPI28	HOCPI28R	1382	3 - 245	3557		
HOCPI53	HOCPI53R	1383	2 - 232	3558	Asp-43 to Gly-48.	
HOCPL59	HOCPL59R	1384	285 - 530	3559		
HOCPM39	HOCPM39R	1385	2 - 136	3560		

HOCPP65	HOCPP65R	1386	3 - 275	3561	Ala-2 to Ala-9.	L0747: 10, L0805: 6, S0358: 4, L0775: 4, L0655: 4, L0749: 4, H0656: 3, S0440: 3, L0803: 3, L0776: 3, L0789: 3, H0650: 2, H0662: 2, L0471: 2, H0620: 2, H0169: 2, H0616: 2, L0770: 2, L0769: 2, L0761: 2, L0800: 2, L0794: 2, L0804: 2, L0806: 2, L0657: 2, L0809: 2, L0665: 2, H0547: 2, S0126: 2, H0660: 2, H0648: 2, H0521: 2, S0406: 2, L0748: 2, L0750: 2, L0758: 2, L0581: 2, T0002: 1, H0686: 1, H0657: 1, S0418: 1, S0420: 1, S0356: 1, S0442: 1, S0444: 1, H0574: 1, H0559: 1, H0486: 1, L0586: 1, T0114: 1, H0250: 1, H0318: 1, H0014: 1, H0051: 1, H0266: 1, H0292: 1, H0428: 1, H0031: 1, H0673: 1, H0163: 1,

HOCPP80	HOCPP80R	1387	3 - 587	3562	Glu-16 to Lys-21, Asn-62 to Arg-68, Asp-94 to Thr-102, Gly-161 to Leu-170.	H0591: 1, H0494: 1, L0640: 1, L0763: 1, L0772: 1, L0773: 1, L0521: 1, L0766: 1, L0774: 1, L0375: 1, L0384: 1, L0793: 1, H0144: 1, H0703: 1, S0374: 1, H0593: 1, H0690: 1, H0659: 1, H0658: 1, S0328: 1, S0152: 1, L0744: 1, L0779: 1, L0752: 1, L0755: 1, L0731: 1, L0759: 1, S0026: 1, H0136: 1, H0542: 1 and H0422: 1.
HOCPQ24	HOCPQ24R	1388	26 - 358	3563		
HOCPQ59	HOCPQ59R	1389	2 - 394	3564	Ser-9 to Glu-16, Phe-49 to Tyr-58, Asn-102 to Gly-110.	L0754: 4, H0290: 2, L0761: 2, L0794: 2, L0766: 2, L0793: 2, L0731: 2, L0758: 2, L0759: 2, L0594: 2, H0713: 1, H0402: 1, S0418: 1, S0354: 1, H0580: 1, L0717: 1, H0550: 1, H0333: 1,

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HOCPQ66	HOCPQ66R	1390	2 - 427	3565	Asp-24 to Leu-31, Ile-123 to Gln-128.	H0643: 1, H0574: 1, S0280: 1, H0618: 1, H0052: 1, H0546: 1, H0545: 1, H0014: 1, H0033: 1, H0100: 1, L5566: 1, L0773: 1, L0521: 1, L0803: 1, L0804: 1, L0807: 1, L0788: 1, H0670: 1, H0660: 1, H0521: 1, S0404: 1, S0406: 1, H0436: 1, L0779: 1, H0543: 1 and H0352: 1.
HOCPQ75	HOCPQ75R	1391	2 - 487	3566		
HOCPR01	HOCPR01R	1392	3 - 536	3567	Ser-11 to Trp-18, Glu-43 to Leu-50, Phe-99 to Arg-120, Ser-136 to Tyr-144, Glu-154 to Cys-163.	
HOCPR29	HOCPR29R	1393	1 - 588	3568	Gln-14 to Lys-19, Glu-79 to Gly-87.	L0748: 9, H0556: 8, L0769: 5, L0766: 4, L0776: 4, H0547: 4, H0521: 4, L0750: 4, L0752: 4, L0758: 4, S0434: 4, H0542: 4, H0657: 3, S0418: 3, H0586: 3, H0587: 3, H0013: 3, H0052: 3,

H0083: 3, H0038: 3, H0634: 3, H0494: 3, S0440: 3, L0774: 3, L0775: 3, L0659: 3, H0522: 3, L0744: 3, L0749: 3, L0755: 3, L0759: 3, H0543: 3, S0358: 2, S0476: 2, H0156: 2, H0194: 2, L0471: 2, H0014: 2, H0201: 2, S0003: 2, T0023: 2, H0135: 2, H0551: 2, S0142: 2, L0372: 2, L0662: 2, L0767: 2, L0381: 2, L0383: 2, L0666: 2, L0665: 2, H0658: 2, H0660: 2, S0044: 2, S3014: 2, L0751: 2, L0754: 2, L0596: 2, L0588: 2, L0591: 2, L0592: 2, L0595: 2, L0601: 2, H0423: 2, S0040: 1, S0134: 1, S0298: 1, H0661: 1, H0664: 1, H0125: 1, S0420: 1, S0356: 1, S0354: 1, S0444: 1, S0360: 1, H0619: 1, H0393: 1, H0549: 1,

H0550: 1, S0222: 1, S6014: 1, H0431: 1, H0592: 1, H0574: 1, T0039: 1, T0114: 1, H0075: 1, H0427: 1, H0590: 1, H0004: 1, H0318: 1, H0581: 1, H0251: 1, H0596: 1, T0115: 1, H0009: 1, H0081: 1, H0050: 1, H0024: 1, T0010: 1, H0687: 1, H0288: 1, H0290: 1, H0039: 1, H0622: 1, L0055: 1, H0032: 1, H0090: 1, H0591: 1, H0040: 1, H0063: 1, H0413: 1, T0069: 1, S0438: 1, H0538: 1, S0210: 1, S0426: 1, H0529: 1, L0520: 1, L0762: 1, L0763: 1, L0770: 1, L0374: 1, L0764: 1, L0768: 1, L0386: 1, L0803: 1, L0524: 1, L0806: 1, L0379: 1, L0527: 1, L0657: 1, L0382: 1, L0809: 1, L0788: 1, L0663: 1, S0052: 1, S0374: 1,

HOCPR33	HOCPR33R	1394	168 - 335	3569		H0691: 1, H0682: 1, H0435: 1, H0659: 1, S0328: 1, S0330: 1, S0152: 1, H0436: 1, L0611: 1, S0027: 1, S0028: 1, L0747: 1, L0779: 1, L0780: 1, L0731: 1, L0608: 1, S0026: 1, H0653: 1, S0192: 1, S0194: 1, H0422: 1 and S0384: 1.
HOCPR53	HOCPR53R	1395	62 - 256	3570	Glu-22 to Glu-30, Lys-42 to Glu-51.	
HOCPR55	HOCPR55R	1396	3 - 440	3571	Pro-7 to Ser-36, Cys-49 to Pro-57, Pro-85 to Ala-91, Gly-97 to Pro-109.	L0766: 2, H0660: 2, L0748: 2, L0740: 2, H0328: 1, L0769: 1, L0651: 1, L0653: 1, H0593: 1 and S0126: 1.
HOCPR77	HOCPR77R	1397	1 - 279	3572		
HOCPR82	HOCPR82R	1398	1 - 102	3573		
HOCPS35	HOCPS35R	1399	3 - 203	3574	Tyr-1 to Gly-39, Ala-41 to Tyr-67.	
HOCPU03	HOCPU03R	1400	1 - 225	3575		
HOCPU30	HOCPU30R	1401	333 - 560	3576		
HOCPU68	HOCPU68R	1402	3 - 269	3577	Ser-49 to Asp-56; Arg-64 to Ile-71, Pro-80 to Ile-89.	
HOCPV29	HOCPV29R	1403	339 - 599	3578	His-10 to Asp-20,	H0620: 2, S0022: 2,

HOCPV67	HOCPV67R	1404	1 - 390	3579	Asn-27 to Gly-33.	L0438: 2, T0002: 1, H0393: 1, H0370: 1, H0050: 1, H0373: 1, H0051: 1, H0028: 1, S0036: 1, H0551: 1, H0059: 1, S0150: 1, L0662: 1, S0126: 1, H0435: 1, H0660: 1, S0044: 1 and H0694: 1.
						L0803: 7, L0439: 5, L0809: 4, L0749: 4, L0776: 3, H0520: 3, L0748: 3, L0750: 3, H0543: 3, S0440: 2, L0794: 2, L0804: 2, L0438: 2, H0547: 2, H0660: 2, S0406: 2, L0743: 2, L0777: 2, L0759: 2, H0556: 1, L0656: 1, S0358: 1, S0360: 1, H0637: 1, H0580: 1, H0741: 1, H0733: 1, H0619: 1, H0415: 1, H0600: 1, H0587: 1, H0486: 1, H0013: 1, H0427: 1, S0474: 1, H0581: 1, H0263: 1, H0457: 1, H0615: 1, H0428: 1, H0644: 1, H0032: 1,

| HOCPV72 | HOCPV72R | 1405 | 3 - 209 | 3580 | | S0036: 1, H0591: 1, H0634: 1, H0264: 1, S0438: 1, S0422: 1, S0002: 1, L0520: 1, L0766: 1, L0649: 1, L0650: 1, L0774: 1, L0775: 1, L0655: 1, L0790: 1, L0666: 1, L0663: 1, H0723: 1, H0593: 1, H0682: 1, H0670: 1, H0521: 1, S0013: 1, H0631: 1, S0206: 1, L0756: 1, L0731: 1, L0608: 1, S0194: 1 and S0424: 1. |
| HOCPW56 | HOCPW56R | 1406 | 2 - 502 | 3581 | Ile-53 to Trp-63, Ala-80 to Gly-89, Arg-134 to Gln-139. | L0752: 19, L0747: 12, L0776: 6, L0750: 5, L0608: 5, L0774: 4, L0805: 4, L0438: 4, L0740: 4, S0210: 3, L0600: 3, S0358: 2, S0222: 2, H0068: 2, H0040: 2, H0413: 2, L0770: 2, L0769: 2, L0772: 2, L0794: 2, L0783: 2, L0809: 2, S0328: 2, L0439: 2, L0745: 2, L0755: 2, L0758: 2, L0590: 2, |

H0170: 1, H0341: 1, H0483: 1, S0420: 1, S0410: 1, S0300: 1, H0411: 1, H0549: 1, L0622: 1, H0013: 1, H0156: 1, S0010: 1, H0052: 1, H0545: 1, N0006: 1, L0471: 1, H0012: 1, S0336: 1, H0428: 1, T0006: 1, H0606: 1, H0674: 1, L0455: 1, S0036: 1, H0038: 1, H0063: 1, H0494: 1, H0560: 1, L0520: 1, L0762: 1, L0521: 1, L0662: 1, L0767: 1, L0803: 1, L0653: 1, L0659: 1, L0790: 1, L0791: 1, L0666: 1, H0144: 1, S0374: 1, H0689: 1, H0690: 1, H0659: 1, H0660: 1, H0648: 1, S0378: 1, H0134: 1, H0214: 1, L0749: 1, L0731: 1, L0361: 1, S0106: 1, S0011: 1, H0653: 1, S0192: 1, S0242: 1, S0194: 1 and H0422: 1.

HOCPW68	HOCPW68R	1407	1 - 297	3582		
HOCPW81	HOCPW81R	1408	2 - 694	3583	Pro-42 to Ser-59, Asp-159 to Asn-168, Tyr-196 to Gly-205.	H0046: 9, L0777: 3, S0376: 2, H0050: 2, S0344: 2, S0126: 2, H0670: 2, S0152: 2, H0521: 2, H0542: 2, H0543: 2, H0341: 1, S0354: 1, S0358: 1, S0408: 1, H0619: 1, H0393: 1, H0592: 1, H0590: 1, S0474: 1, H0546: 1, H0551: 1, H0494: 1, S0440: 1, L0663: 1, H0660: 1, H0672: 1, H0631: 1, S0028: 1, L0757: 1, S0434: 1, L0581: 1 and L0593: 1.
HOCPX01	HOCPX01R	1409	99 - 296	3584	Glu-24 to Ser-29.	
HOCPY70	HOCPY70R	1410	266 - 442	3585		H0617: 5, L0769: 4, L0776: 4, L0751: 4, L0747: 4, L0774: 3, H0685: 2, H0657: 2, H0483: 2, H0486: 2, H0052: 2, H0674: 2, H0494: 2, L0775: 2, L0518: 2, H0682: 2, L0603: 2, H0170: 1, S6024: 1, S0116: 1, H0664: 1, H0306: 1,

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HOCPZ76	HOCPZ76R	1411	2 - 460	3586	Pro-93 to Arg-99, Ser-143 to Val-149.	S0420: 1, S0376: 1, S0360: 1, S0007: 1, S0300: 1, S0222: 1, S6014: 1, H0250: 1, L0021: 1, L0022: 1, S0049: 1, H0309: 1, H0150: 1, H0009: 1, S0051: 1, H0188: 1, T0006: 1, H0604: 1, H0673: 1, H0169: 1, H0087: 1, L0065: 1, L0763: 1, L0638: 1, L0773: 1, L0662: 1, L0768: 1, L0766: 1, L0649: 1, L0651: 1, L0657: 1, L0540: 1, L0783: 1, L0809: 1, L0530: 1, L0787: 1, L0789: 1, L0665: 1, S0374: 1, S0126: 1, H0684: 1, H0660: 1, H0539: 1, S0380: 1, H0576: 1, L0741: 1, L0742: 1, L0749: 1, L0750: 1, L0779: 1, L0759: 1, S0031: 1 and L0590: 1.
HOCQA25	HOCQA25R	1412	352 - 543	3587	Ser-25 to Ser-30.	S0358: 45, S0360: 30,

S0374: 22, S0444: 21,
L0662: 21, S0408: 19,
L0666: 15, S0380: 14,
L0664: 11, L0665: 11,
S0026: 11, H0059: 10,
S0328: 10, S0330: 10,
H0251: 9, L0809: 8,
H0670: 8, S0378: 8,
H0661: 7, S0354: 7,
S0440: 7, L0775: 7,
L0659: 7, L0663: 7,
H0672: 7, S0406: 7,
S0442: 6, S0414: 6,
L0657: 6, L0774: 5,
H0659: 5, L0754: 5,
S0434: 5, S0376: 4,
L0483: 4, L0532: 4,
H0547: 4, H0660: 4,
L0602: 4, L0592: 4,
S0460: 4, S0007: 3,
H0529: 3, L0520: 3,
L0803: 3, H0648: 3,
S0404: 3, L0748: 3,
L0747: 3, L0750: 3,
L0759: 3, H0445: 3,
L0608: 3, S0424: 3,
H0663: 2, H0664: 2,
H0580: 2, L0444: 2,
H0156: 2, H0014: 2,
H0615: 2, H0688: 2,

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H0039: 2, H0644: 2, H0617: 2, H0032: 2, H0673: 2, L0763: 2, L0646: 2, L0804: 2, L0776: 2, H0627: 2, L0777: 2, L0758: 2, L0362: 2, H0506: 2, L0615: 1, H0685: 1, H0656: 1, L0778: 1, L0785: 1, H0341: 1, H0669: 1, H0662: 1, H0402: 1, S0356: 1, T0008: 1, S0476: 1, H0351: 1, H0299: 1, H0486: 1, H0013: 1, L0021: 1, T0082: 1, H0581: 1, H0421: 1, H0235: 1, H0596: 1, L0040: 1, H0178: 1, H0563: 1, H0012: 1, H0328: 1, H0031: 1, H0068: 1, H0135: 1, T0067: 1, H0264: 1, H0488: 1, H0100: 1, H0494: 1, S0352: 1, S0448: 1, S0450: 1, H0509: 1, S0472: 1, H0647: 1, H0695: 1, L0764: 1, L0765: 1, L0767: 1, L0768: 1,

HOCQA26	HOCQA26R	1413	1 - 384	3588	L0364: 1, L0766: 1, L5568: 1, L0552: 1, L0376: 1, L0653: 1, L0655: 1, L0529: 1, H0144: 1, H0520: 1, H0690: 1, H0682: 1, H0684: 1, H0435: 1, H0658: 1, S0392: 1, H0478: 1, H0626: 1, H0631: 1, L0744: 1, L0751: 1, L0749: 1, L0779: 1, L0755: 1, S0308: 1, H0707: 1, L0596: 1, L0593: 1 and S0384: 1.
HOCQA37	HOCQA37R	1414	13 - 276	3589	
HOCQA86	HOCQA86R	1415	3 - 455	3590	
HOCQB18	HOCQB18R	1416	3 - 473	3591	Met-1 to Leu-6, Gly-19 to Lys-26, Ala-32 to Lys-38, Ala-89 to Leu-94, Gly-134 to Val-141.
HOCQB48	HOCQB48R	1417	1 - 588	3592	Met-36 to Pro-42, Pro-49 to Thr-55, Leu-104 to Met-110, Trp-112 to Asn-117, Glu-122 to Tyr-134, Gln-142 to Ser-148, Leu-174 to Tyr-180.

HOCQC57	HOCQC57R	1418	1 - 237	3593	
					L0766: 6, L0752: 5, L0794: 4, H0039: 3, H0622: 3, S0440: 3, L0770: 3, L0809: 3, H0547: 3, L0747: 3, S0356: 2, H0587: 2, H0427: 2, H0156: 2, H0015: 2, H0031: 2, L0771: 2, L0662: 2, L0768: 2, L0804: 2, L0659: 2, L0666: 2, L0664: 2, L0438: 2, H0660: 2, L0740: 2, L0754: 2, L0745: 2, L0749: 2, L0731: 2, L0593: 2, H0624: 1, H0657: 1, H0656: 1, H0370: 1, H0438: 1, T0040: 1, L0586: 1, T0114: 1, H0036: 1, S0010: 1, H0052: 1, H0545: 1, H0050: 1, H0014: 1, H0373: 1, L0163: 1, H0051: 1, H0071: 1, T0010: 1, H0030: 1, H0316: 1, H0598: 1, H0090: 1, S0038: 1, H0561: 1, H0509: 1, H0130: 1, H0633: 1, S0002: 1,

HOCQC71	HOCQC71R	1419	216 - 521	3594		L0500: 1, L0761: 1, L0764: 1, L0773: 1, L0649: 1, L0375: 1, L0805: 1, L0653: 1, L0544: 1, L0545: 1, L0792: 1, L0663: 1, L0665: 1, H0670: 1, H0666: 1, H0521: 1, L0743: 1, L0439: 1, L0777: 1, L0755: 1, L0758: 1, L0596: 1, L0589: 1, L0592: 1, H0216: 1, H0542: 1, H0423: 1 and H0352: 1.
HOCQD10	HOCQD10R	1420	2 - 529	3595	Thr-21 to Gly-28, Lys-36 to Gly-43, Ala-73 to His-85.	
HOCQD19	HOCQD19R	1421	3 - 335	3596	Gly-70 to Gly-79.	H0556: 2, H0519: 2, S0116: 1, H0370: 1, H0063: 1, L0800: 1, L0803: 1, L0383: 1, L0789: 1, H0593: 1, H0659: 1, H0660: 1, L0777: 1 and H0665: 1.
HOCQD38	HOCQD38R	1422	290 - 550	3597		L0748: 49, L0766: 22, H0457: 12, L0439: 12, H0581: 11, L0659: 11, L0754: 11, L0745: 10, L0662: 9, L0665: 9,

H0710: 9, H0556: 8, L0666: 8, H0521: 8, L0751: 8, L0758: 8, L0592: 8, H0486: 7, H0318: 7, L0774: 7, L0664: 7, S0360: 6, H0510: 6, L0731: 6, H0423: 6, H0638: 5, H0580: 5, H0427: 5, H0050: 5, H0271: 5, L0800: 5, H0670: 5, H0552: 5, L0581: 5, H0506: 5, H0402: 4, S0358: 4, H0179: 4, L0768: 4, L0803: 4, L0438: 4, H0547: 4, H0658: 4, S0328: 4, H0555: 4, H0436: 4, L0747: 4, L0750: 4, L0777: 4, L0759: 4, L0593: 4, S0134: 3, H0657: 3, H0663: 3, H0305: 3, S0420: 3, H0619: 3, H0635: 3, H0098: 3, H0575: 3, S0003: 3, H0264: 3, H0413: 3, H0623: 3, H0494: 3, H0641: 3, L0763: 3, L0667: 3, L0794: 3, L0775: 3,

L0651: 3, L0806: 3, L0653: 3, L0776: 3, L0655: 3, H0519: 3, H0690: 3, S0330: 3, L0602: 3, S0404: 3, L0779: 3, L0752: 3, L0755: 3, H0542: 3, S0114: 2, S0282: 2, H0661: 2, S0356: 2, S0376: 2, S0132: 2, H0411: 2, H0431: 2, H0586: 2, H0013: 2, H0069: 2, S0280: 2, L0021: 2, H0599: 2, H0046: 2, H0014: 2, H0051: 2, H0266: 2, H0416: 2, H0687: 2, H0316: 2, H0634: 2, H0551: 2, T0042: 2, S0440: 2, H0646: 2, S0002: 2, H0529: 2, L0769: 2, L0638: 2, L0761: 2, L0372: 2, L0646: 2, L0641: 2, L0648: 2, L0804: 2, L0784: 2, L0606: 2, L0527: 2, L0663: 2, S0374: 2, L0565: 2, H0711: 2, S0380: 2, H0696: 2, S3014: 2,

L0744: 2, L0740: 2,
L0746: 2, L0757: 2,
H0445: 2, L0591: 2,
H0543: 2, H0422: 2,
H0220: 1, H0222: 1,
H0685: 1, S0430: 1,
H0650: 1, L0808: 1,
S0116: 1, S0212: 1,
S0001: 1, H0662: 1,
H0459: 1, S0418: 1,
S0408: 1, H0393: 1,
L0717: 1, H0369: 1,
H0261: 1, H0392: 1,
H0409: 1, H0574: 1,
H0632: 1, L0623: 1,
T0039: 1, T0109: 1,
H0250: 1, H0036: 1,
S0474: 1, T0071: 1,
H0421: 1, S0049: 1,
H0052: 1, H0309: 1,
H0204: 1, H0597: 1,
H0544: 1, H0546: 1,
H0024: 1, H0200: 1,
H0071: 1, T0010: 1,
H0083: 1, H0355: 1,
S0318: 1, S0250: 1,
H0039: 1, L0483: 1,
H0031: 1, H0553: 1,
H0644: 1, H0182: 1,
H0032: 1, H0388: 1,

HOCQD42	HOCQD42R	1423	1 - 315	3598		
				Ala-1 to Gly-8, Leu-26 to Ser-40, Pro-57 to Leu-95.	H0040: 1, H0380: 1, H0280: 1, H0560: 1, H0561: 1, L0065: 1, H0652: 1, S0426: 1, L0369: 1, L0639: 1, L0637: 1, L0772: 1, L0642: 1, L0765: 1, L0378: 1, L0805: 1, L0607: 1, L0629: 1, L0384: 1, L0647: 1, L0789: 1, L0790: 1, S0052: 1, S0216: 1, H0144: 1, H0593: 1, S0126: 1, H0689: 1, H0682: 1, H0435: 1, H0659: 1, H0660: 1, H0648: 1, H0672: 1, H0518: 1, S0152: 1, S0406: 1, H0187: 1, H0576: 1, S0392: 1, H0478: 1, H0345: 1, S0027: 1, L0756: 1, S0031: 1, H0444: 1, H0707: 1, S0434: 1, L0599: 1, S0011: 1, H0668: 1, H0667: 1, S0196: 1 and L0697: 1.	

HOCQD45	HOCQD45R	1424	38 - 475	3599	Arg-11 to Arg-20, Glu-61 to Ser-66, Pro-114 to Ala-125.	S0126: 23, H0038: 16, S0372: 15, H0550: 12, H0031: 12, H0545: 10, L0659: 10, S0360: 9, L0662: 9, L0757: 9, L0758: 9, H0551: 8, S0322: 8, H0431: 7, L0666: 7, L0750: 7, H0486: 6, H0546: 6, S0440: 6, L0776: 6, H0549: 5, H0620: 5, L0664: 5, H0593: 5, H0672: 5, H0539: 5, S0380: 5, H0555: 5, L0747: 5, S0358: 4, S0007: 4, H0409: 4, S0010: 4, H0039: 4, H0622: 4, H0616: 4, L0769: 4, L0641: 4, L0655: 4, H0696: 4, L0731: 4, S0040: 3, S0212: 3, S0418: 3, S0045: 3, S0280: 3, H0012: 3, H0090: 3,
HOCQE35	HOCQE35R	1425	3 - 410	3600		
HOCQG94	HOCQG94R	1426	3 - 317	3601	Glu-58 to Arg-63.	
HOCQH81	HOCQH81R	1427	144 - 335	3602		
HOCQI31	HOCQI31R	1428	1 - 324	3603	Lys-21 to His-26, Arg-47 to Val-55, Ser-65 to Gly-70, Ala-76 to Gly-81.	

L0637: 3, L0771: 3, L0775: 3, L0651: 3, L0653: 3, H0690: 3, H0660: 3, S0328: 3, S0044: 3, H0295: 2, T0049: 2, H0662: 2, S0356: 2, S0354: 2, S0376: 2, L0717: 2, H0441: 2, H0333: 2, H0574: 2, H0257: 2, H0485: 2, H0575: 2, H0251: 2, H0544: 2, L0471: 2, H0014: 2, S0051: 2, H0266: 2, H0687: 2, S0003: 2, H0328: 2, H0615: 2, T0067: 2, H0412: 2, H0059: 2, S0016: 2, H0647: 2, S0210: 2, L0598: 2, L0520: 2, L0638: 2, L0796: 2, L0772: 2, L0764: 2, L0519: 2, L0790: 2, H0519: 2, H0689: 2, H0710: 2, S0406: 2, S3014: 2, S0028: 2, S0206: 2, L0740: 2, S0031: 2, L0604: 2, L0601: 2, S0192: 2, S0342: 1, L0785: 1,

S0116: 1, S0298: 1, H0663: 1, S0420: 1, S0410: 1, S0468: 1, H0369: 1, H0453: 1, H0370: 1, H0392: 1, H0602: 1, H0587: 1, T0039: 1, H0013: 1, H0004: 1, H0052: 1, H0309: 1, H0046: 1, H0041: 1, H0081: 1, H0011: 1, H0049: 1, T0079: 1, H0375: 1, S0250: 1, S0214: 1, H0252: 1, H0428: 1, T0006: 1, H0032: 1, H0708: 1, H0316: 1, H0598: 1, H0400: 1, H0100: 1, H0494: 1, L0475: 1, S0014: 1, S0015: 1, H0625: 1, S0382: 1, H0646: 1, L0762: 1, L0763: 1, L0630: 1, L0646: 1, L0768: 1, L0649: 1, L0806: 1, L0656: 1, L0809: 1, L0647: 1, L0663: 1, L0665: 1, S0374: 1, H0691: 1, H0547: 1, H0682: 1, H0521: 1, S0027: 1,

HOCQJ35	HOCQJ35R	1429	61 - 546	3604	Leu-16 to Pro-22, Val-30 to Asp-36.	L0748: 1, L0756: 1, L0777: 1, L0752: 1, L0755: 1, H0343: 1, H0707: 1, L0605: 1, H0668: 1, S0196: 1 and H0506: 1.
						H0046: 12, L0771: 7, L0774: 3, L0651: 3, L0806: 3, L0666: 3, L0565: 3, L0748: 3, S0444: 2, S0408: 2, H0393: 2, L0372: 2, L0662: 2, L0766: 2, L0659: 2, L0664: 2, L0744: 2, L0731: 2, H0294: 1, S0442: 1, S0278: 1, H0549: 1, L0021: 1, H0085: 1, H0234: 1, H0596: 1, H0597: 1, H0546: 1, H0024: 1, S0003: 1, H0252: 1, H0383: 1, H0674: 1, H0068: 1, H0487: 1, H0413: 1, T0069: 1, H0100: 1, H0494: 1, H0625: 1, S0352: 1, L0761: 1, L0772: 1, L0646: 1, L0800: 1, L0764: 1, L0773: 1, L0794: 1,

HOCQM24	HOCQM24R	1430	3 - 230	3605	Gly-2 to Gly-12, Gly-14 to Asn-28, Met-32 to Gly-49, Lys-54 to Phe-76.	L0649: 1, L0803: 1, L0805: 1, L0653: 1, L0515: 1, L0367: 1, L0665: 1, S0374: 1, H0684: 1, H0660: 1, S0328: 1, S0044: 1, S0404: 1, L0740: 1, L0747: 1, L0757: 1, L0758: 1, S0260: 1 and S0276: 1.
HODAF78	HODAF78R	1431	2 - 76	3606		
HODBT55	HODBT55R	1432	234 - 395	3607	Ala-1 to Ser-8.	H0328: 1 and H0435: 1.
HODCT68	HODCT68R	1433	266 - 484	3608	Gln-1 to Pro-16.	L0493: 4, L0794: 3, H0497: 2, H0038: 2, L0766: 2, L0809: 2, L0779: 2, L0777: 2, L0759: 2, L0601: 2, H0170: 1, S0114: 1, H0341: 1, H0125: 1, S0046: 1, H0592: 1, H0587: 1, H0559: 1, H0156: 1, H0328: 1, H0616: 1, H0386: 1, H0538: 1, H0529: 1, L0769: 1, L0764: 1,

HODCZ52	HODCZ52R	1434	2 - 139	3609	
					L0775: 1, L0666: 1, H0659: 1, H0518: 1, L0741: 1, L0439: 1, L0747: 1, L0593: 1, L0594: 1, H0665: 1 and H0667: 1.
					AR089: 19, AR104: 18, AR060: 12, AR096: 7, AR055: 4, AR061: 3 L0751: 29, H0549: 17, H0550: 17, L0666: 9, L0747: 8, H0689: 7, H0690: 7, H0682: 7, H0615: 6, H0670: 6, H0328: 5, H0150: 4, H0660: 4, S0330: 4, S0044: 4, L0362: 4, H0597: 3, H0688: 3, L0764: 3, L0657: 3, L0809: 3, L0753: 3, L0758: 3, L0759: 3, H0431: 2, H0046: 2, T0067: 2, H0059: 2, H0647: 2, L0774: 2, L0805: 2, L0783: 2, L0438: 2, H0593: 2, H0648: 2, H0672: 2, S0328: 2, S0404: 2, L0744: 2, L0779: 2,

| HODDI57 | HODDI57R | 1435 | 3 - 194 | 3610 | Gly-7 to Glu-41. | S0436: 2, H0662: 1, S0442: 1, S0444: 1, S0408: 1, S0007: 1, H0461: 1, H0085: 1, H0009: 1, S0024: 1, H0188: 1, H0039: 1, H0604: 1, H0424: 1, H0169: 1, H0674: 1, L0520: 1, L5569: 1, L0803: 1, L0804: 1, L0775: 1, L0658: 1, L0634: 1, L0542: 1, L0528: 1, L2269: 1, L0663: 1, L0665: 1, H0684: 1, H0659: 1, H0658: 1, S0380: 1, S0406: 1, H0555: 1 and L0780: 1. | L0794: 4, L0803: 4, H0328: 3, L0779: 3, L0515: 2, L0809: 2, H0144: 2, L0754: 2, L0756: 2, L0759: 2, H0171: 1, S0282: 1, H0346: 1, S0222: 1, H0441: 1, H0486: 1, H0069: 1, H0052: 1, H0544: 1, H0266: 1, L0598: 1, L0638: 1, L0766: 1, L0650: 1, |

HODEJ47	HODEJ47R	1436	11 - 295	3611	Leu-7 to Thr-16.	L0774: 1, L0805: 1, L0776: 1, L0657: 1, L0559: 1, L0659: 1, L0543: 1, L0438: 1, H0682: 1, S0328: 1, L0745: 1, L0750: 1, L0777: 1, L0752: 1, L0758: 1, H0343: 1 and H0665: 1.	L0754: 20, L0759: 6, L0794: 4, H0615: 3, L0438: 3, S0126: 3, S0360: 2, H0411: 2, H0050: 2, H0163: 2, S0422: 2, L0665: 2, L0748: 2, L0747: 2, L0749: 2, L0780: 2, L0755: 2, H0595: 2, L0361: 2, H0170: 1, H0686: 1, H0638: 1, S0418: 1, S0358: 1, S0376: 1, H0586: 1, H0587: 1, H0009: 1, H0024: 1, H0328: 1, H0428: 1, H0625: 1, S0210: 1, L0598: 1, L0667: 1, L0764: 1, L0662: 1, L0766: 1, L0649: 1, L0650: 1, L0805: 1, L0655: 1,

HODEO42	HODEO42R	1437	1 - 54	3612		
HODEP78	HODEP78R	1438	187 - 432	3613		L0789: 1, L0663: 1, H0144: 1, S0330: 1, S0028: 1, L0751: 1, L0750: 1, L0731: 1, L0758: 1 and L0605: 1.
						L0803: 7, L0439: 4, L0663: 3, L0749: 3, H0615: 2, L0769: 2, L0794: 2, L0774: 2, L0748: 2, L0777: 2, L0752: 2, L0142: 1, H0646: 1, L0767: 1, L0804: 1, L0784: 1, L0805: 1, L0789: 1, L0666: 1, L0438: 1, H0670: 1 and L0589: 1.
HODEQ42	HODEQ42R	1439	349 - 444	3614	Asn-1 to Ser-6, Thr-22 to Asn-32.	H0615: 1 and S0031: 1.
HODER57	HODER57R	1440	92 - 289	3615		
HODES60	HODES60R	1441	2 - 421	3616		L0662: 2, H0615: 1, L0761: 1, L0791: 1, H0519: 1, L0752: 1 and L0758: 1.
HODEU47	HODEU47R	1442	153 - 347	3617	Ser-1 to Ser-9, Asp-15 to Ala-21.	H0615: 2
HODEV69	HODEV69R	1443	370 - 546	3618		
HODEW54	HODEW54R	1444	374 - 568	3619		H0328: 1 and H0615: 1.

HODEW79	HODEW79R	1445	309 - 566	3620			
HODEX45	HODEX45R	1446	220 - 423	3621		H0615: 2 and L0532: 1.	
HODEX69	HODEX69R	1447	58 - 231	3622		H0615: 4 and L0659: 1.	
HODEX79	HODEX79R	1448	1 - 432	3623			
HODFC44	HODFC44RP00	1449	1 - 207	3624	Ala-9 to Asp-21, Thr-31 to Arg-37.		L0747: 16, L0754: 10, L0751: 7, L0757: 7, H0657: 6, L0748: 6, L0771: 5, H0659: 5, L0740: 5, L0755: 5, H0594: 4, L0744: 4, H0341: 3, S0358: 3, S0278: 3, H0333: 3, H0615: 3, S0366: 3, L0520: 3, L0775: 3, L0517: 3, S0374: 3, S0328: 3, L0731: 3, H0136: 3, T0002: 2, S0218: 2, S0116: 2, S0354: 2, S0376: 2, H0637: 2, S0045: 2, H0370: 2, L0622: 2, H0156: 2, H0599: 2, H0545: 2, H0266: 2, H0039: 2, H0617: 2, H0132: 2, L0769: 2, L0665: 2, H0672: 2, H0539: 2, H0134: 2, L0756: 2, L0752: 2,

L0758: 2, H0624: 1,
H0170: 1, H0265: 1,
S6024: 1, H0656: 1,
H0255: 1, H0661: 1,
H0125: 1, H0192: 1,
S0418: 1, S0420: 1,
S0360: 1, H0580: 1,
H0393: 1, S0300: 1,
H0411: 1, H0369: 1,
H0261: 1, S0222: 1,
L0623: 1, S0280: 1,
H0618: 1, H0318: 1,
H0581: 1, H0421: 1,
L0738: 1, H0086: 1,
L0471: 1, H0024: 1,
H0082: 1, L0043: 1,
S0214: 1, H0031: 1,
H0673: 1, H0068: 1,
H0038: 1, H0634: 1,
H0087: 1, T0067: 1,
H0412: 1, H0100: 1,
H0512: 1, S0144: 1,
S0142: 1, S0344: 1,
S0422: 1, H0517: 1,
L0762: 1, L0763: 1,
L0761: 1, L0764: 1,
L0768: 1, L0766: 1,
L0649: 1, L0774: 1,
L0651: 1, L0776: 1,
L0655: 1, L0526: 1,

HODFD90	HODFD90R	1450	3 - 281	3625	Ser-22 to Gln-38.	L0794: 3, L0776: 2, S0358: 1, H0615: 1, H0538: 1, L0662: 1, L0803: 1, L0805: 1, L0791: 1, L0663: 1, S0374: 1, H0658: 1 and L0758: 1.	L0518: 1, L0783: 1, L0809: 1, L0666: 1, L0663: 1, H0144: 1, H0593: 1, H0682: 1, H0648: 1, S0044: 1, H0214: 1, L0439: 1, L0749: 1, L0750: 1, L0753: 1, H0444: 1, H0445: 1, H0595: 1, L0581: 1, L0593: 1 and H0542: 1.
HODFE81	HODFE81R	1451	296 - 433	3626			
HODFI68	HODFI68R	1452	293 - 409	3627		L0766: 2, H0328: 1 and H0615: 1.	
HODFJ14	HODFJ14R	1453	2 - 259	3628	Phe-45 to Tyr-60, Arg-67 to Glu-74.		
HODFJ52	HODFJ52R	1454	97 - 225	3629	Pro-18 to Pro-23, Pro-37 to Val-42.	H0328: 1 and H0615: 1.	
HODFK30	HODFK30RA	1455	1 - 69	3630			
HODFK89	HODFK89R	1456	16 - 324	3631	Lys-69 to Asp-81.		
HODFL50	HODFL50R	1457	1 - 165	3632		H0615: 2, H0370: 1, H0328: 1 and L0749: 1.	

HODFL75	HODFL75R	1458	304 - 393	3633	Ala-2 to Trp-9.	H0615: 2
HODFO16	HODFO16R	1459	251 - 565	3634		
HODFO64	HODFO64R	1460	1 - 195	3635	Glu-12 to Gly-27, Gln-37 to Tyr-49.	L0666: 3, H0615: 2, S0116: 1, H0675: 1, H0012: 1, L0055: 1, S0438: 1, L0763: 1, L0667: 1, L0649: 1, L0803: 1, L0804: 1, L0659: 1, H0689: 1, H0659: 1, L0752: 1 and S0026: 1.
HODFP51	HODFP51R	1461	11 - 439	3636	His-33 to Leu-39, Gly-49 to Glu-56, Ser-60 to Lys-143.	
HODFQ19	HODFQ19R	1462	1 - 519	3637	Leu-33 to Val-40, Lys-144 to Glu-152.	
HODFQ37	HODFQ37R	1463	2 - 535	3638	His-1 to Lys-12, Gln-17 to Leu-27, Val-69 to Asp-76, Asp-122 to Trp-128, Asp-141 to Glu-146, Ser-155 to His-164.	
HODFR72	HODFR72R	1464	84 - 512	3639		H0615: 2
HODFU24	HODFU24R	1465	372 - 695	3640		
HODFU78	HODFU78R	1466	2 - 130	3641		
HODFV22	HODFV22R	1467	291 - 467	3642	Pro-1 to Asp-7.	
HODFV60	HODFV60R	1468	7 - 168	3643		H0328: 1, H0615: 1 and L0365: 1.
HODFV69	HODFV69R	1469	64 - 210	3644		H0615: 3, H0693: 2,

HODFV79	HODFV79R	1470	360 - 623	3645		H0266: 1, S0002: 1, L0790: 1, H0547: 1, S0152: 1, H0521: 1, H0696: 1, L0366: 1, S0194: 1 and S0276: 1.
HODFV82	HODFV82R	1471	14 - 154	3646		
HODFV95	HODFV95R	1472	587 - 718	3647		
HODFY38	HODFY38R	1473	22 - 309	3648	Lys-8 to Tyr-26, Thr-67 to Met-73.	H0615: 2, S0444: 1, L0438: 1 and L0439: 1.
HODGA29	HODGA29R	1474	186 - 308	3649	Val-1 to Ser-9, Gln-22 to Ser-29.	
HODGB69	HODGB69R	1475	3 - 95	3650		
HODGB78	HODGB78R	1476	91 - 225	3651	Thr-14 to Asn-19.	
HODGE22	HODGE22R	1477	129 - 407	3652		
HODGH30	HODGH30R	1478	25 - 132	3653	Thr-7 to Ser-14, Pro-28 to Gly-36.	
HODGH43	HODGH43R	1479	36 - 128	3654	His-8 to Gly-18, Phe-25 to Gly-30.	
HODGH65	HODGH65R	1480	2 - 166	3655		H0615: 2
HODGL65	HODGL65R	1481	127 - 300	3656		L0754: 2, L0756: 2, H0615: 1, L0438: 1 and L0747: 1.
HODGN53	HODGN53R	1482	2 - 583	3657	Lys-1 to Thr-7, Ser-13 to Arg-33, Val-56 to Lys-63, Phe-143 to Thr-148.	L0741: 4, H0615: 2, L0769: 2, L0793: 2, H0328: 1, S0144: 1, L0794: 1, L0499: 1, L0805: 1, L0438: 1 and L0755: 1.

HODGO02	HODGO02R	1483	361 - 561	3658		
HODGO09	HODGO09R	1484	1 - 348	3659		H0615: 2 and L0779: 1.
HODGO21	HODGO21R	1485	2 - 193	3660	Glu-23 to Val-28, Arg-56 to Ser-64.	
HODGP53	HODGP53R	1486	1 - 198	3661		
HODGQ52	HODGQ52R	1487	9 - 131	3662		
HODGS83	HODGS83R	1488	205 - 354	3663		
HODGW91	HODGW91R	1489	182 - 3	3664	Lys-1 to Gly-12, Pro-25 to Thr-37, Ser-46 to Gly-51.	
HODGX46	HODGX46R	1490	358 - 513	3665		H0615: 3 and L0766: 1.
HODGX91	HODGX91R	1491	219 - 572	3666		
HODGY90	HODGY90R	1492	379 - 573	3667		
HODGZ63	HODGZ63R	1493	1 - 504	3668	Pro-30 to Asn-35, Arg-39 to Asn-57, Ser-62 to Ile-67, Glu-73 to Arg-81, Lys-89 to Lys-99.	L0805: 19, L0794: 13, L0766: 12, L0740: 11, L0747: 11, L0779: 11, L0803: 8, H0521: 7, L0439: 7, L0731: 7, L0605: 7, S0474: 6, S0422: 6, L0769: 6, L0776: 5, L0665: 5, L0748: 5, L0758: 5, H0618: 4, S0010: 4, L0771: 4, L0789: 4, S3014: 4, H0341: 3, H0615: 3, L0659: 3, S0052: 3, L0438: 3,

H0658: 3, H0436: 3,
L0752: 3, L0759: 3,
S0360: 2, S0222: 2,
H0574: 2, H0599: 2,
H0196: 2, H0050: 2,
H0266: 2, H0708: 2,
H0135: 2, H0038: 2,
H0616: 2, L0804: 2,
H0144: 2, S0374: 2,
L0352: 2, H0682: 2,
L0743: 2, L0744: 2,
L0751: 2, L0749: 2,
L0756: 2, S0424: 2,
H0624: 1, T0002: 1,
H0657: 1, L0785: 1,
H0671: 1, S0442: 1,
S0408: 1, H0733: 1,
S0278: 1, H0431: 1,
H0013: 1, S0280: 1,
H0581: 1, S0049: 1,
H0052: 1, H0251: 1,
L0040: 1, H0123: 1,
L0471: 1, H0630: 1,
H0375: 1, S0003: 1,
H0252: 1, L0483: 1,
T0006: 1, H0644: 1,
H0673: 1, S0036: 1,
H0163: 1, H0040: 1,
H0551: 1, H0412: 1,
H0413: 1, S0038: 1,

HODGZ76	HODGZ76R	1494	12 - 179	3669		H0509: 1, H0131: 1, S0344: 1, L0598: 1, L0369: 1, L0763: 1, L0770: 1, L0638: 1, L0667: 1, L0662: 1, L0363: 1, L0768: 1, L0775: 1, L0375: 1, L0806: 1, L0653: 1, L0655: 1, L0809: 1, S0126: 1, H0689: 1, H0684: 1, H0660: 1, H0672: 1, H0710: 1, H0522: 1, S0146: 1, S3012: 1, S0027: 1, S0028: 1, L0745: 1, L0750: 1, L0780: 1, L0753: 1, H0445: 1, L0362: 1, L0361: 1, H0653: 1, H0423: 1 and H0506: 1.
HODHD23	HODHD23R	1495	3 - 134	3670	Pro-8 to Asn-18, Gln-25 to Glu-30.	
HODHD64	HODHD64R	1496	14 - 205	3671	Tyr-33 to Tyr-38.	H0615: 2
HODHE36	HODHE36R	1497	190 - 366	3672		H0328: 1 and H0615: 1.
HODHE54	HODHE54R	1498	3 - 515	3673	Glu-7 to Tyr-12, Glu-44 to Asp-49, Pro-57 to Gly-64, Leu-69 to Arg-74,	

HODHE88	HODHE88R	1499	2 - 166	3674	Thr-76 to Tyr-86. Lys-42 to Asp-48.	H0328: 1 and H0615: 1.
HODHG56	HODHG56R	1500	82 - 300	3675	Glu-11 to Trp-17, Val-22 to Ser-29, Asp-45 to Lys-52.	
HODHJ56	HODHJ56R	1501	281 - 499	3676	Trp-12 to Ile-18, Gln-40 to Leu-54.	
HODHK82	HODHK82R	1502	71 - 238	3677	Lys-17 to Ala-24.	
HODHK86	HODHK86R	1503	2 - 292	3678	Glu-1 to Gln-7, Met-64 to Gly-69.	
HODIG29	HODIG29R	1504	2 - 115	3679		
HODIL36	HODIL36RA	1505	218 - 472	3680	Lys-9 to Ser-15, Val-42 to Thr-50.	H0261: 1 and H0615: 1.
HODJZ09	HODJZ09R	1506	31 - 594	3681	Phe-116 to Met-126.	AR104: 14, AR096: 13, AR089: 11, AR060: 10, AR055: 6, AR061: 5 / H0615: 3, H0658: 2, H0661: 1 and L0355: 1.
HODKB19	HODKB19R	1507	504 - 746	3682		
HODKB82	HODKB82R	1508	3 - 344	3683	Gln-40 to Glu-48, Phe-68 to Arg-77, Ile-108 to Glu-113.	
HODKB89	HODKB89R	1509	73 - 216	3684		
HODKB93	HODKB93R	1510	1 - 159	3685	Arg-33 to Thr-38.	
HODKC29	HODKC29R	1511	1 - 486	3686		S0360: 9, L0642: 5, L0752: 5, L0662: 4, L0659: 4, L0666: 4,

S0007: 3, L0646: 3, L0776: 3, L0750: 3, H0662: 2, S0444: 2, S0222: 2, L0483: 2, L0764: 2, L0648: 2, L0775: 2, L0665: 2, H0648: 2, L0779: 2, S0031: 2, S0110: 1, H0638: 1, S0418: 1, S0376: 1, S0408: 1, L0717: 1, H0331: 1, H0574: 1, S0414: 1, H0492: 1, H0156: 1, L0021: 1, S0049: 1, H0310: 1, H0327: 1, H0373: 1, T0010: 1, S6028: 1, H0615: 1, S0366: 1, S0036: 1, H0038: 1, H0616: 1, H0413: 1, T0041: 1, H0494: 1, S0438: 1, S0440: 1, H0509: 1, S0142: 1, S0210: 1, L0598: 1, L0762: 1, L0640: 1, L0631: 1, L0772: 1, L0766: 1, L0551: 1, L0774: 1, L0664: 1, H0547: 1, S0126: 1, H0659: 1, S0378: 1, S0152: 1,

HODKC67	HODKC67R	1512	242 - 373	3687		H0696: 1, S3014: 1, L0439: 1, L0740: 1, L0754: 1, L0756: 1, L0780: 1, L0755: 1, L0758: 1, S0434: 1 and H0667: 1.
HODKD20	HODKD20R	1513	43 - 213	3688	Arg-11 to Ser-17, Leu-51 to Pro-57.	H0615: 2
HODKD64	HODKD64R	1514	413 - 237	3689	Pro-5 to Asn-10.	H0615: 2 and H0696: 1.
HODKE85	HODKE85R	1515	314 - 412	3690	Ser-18 to Ile-23.	H0615: 2 and H0328: 1.
HODKF91	HODKF91R	1516	244 - 417	3691	Lys-12 to Ser-18.	
HODKG09	HODKG09R	1517	28 - 240	3692		
HODKJ77	HODKJ77R	1518	452 - 595	3693		H0615: 2
HODKK26	HODKK26R	1519	2 - 415	3694	Asp-40 to Gly-45, Leu-59 to Glu-67, Lys-95 to Ile-105, Asp-113 to Gly-118.	
HODKK40	HODKK40R	1520	1 - 642	3695	Ser-15 to Phe-23, Lys-41 to Tyr-46, Pro-48 to Val-59, Thr-90 to Ile-103, Ser-110 to Arg-116, Pro-123 to Lys-137, Lys-157 to Glu-167, Arg-178 to Arg-194.	
HODKK73	HODKK73R	1521	3 - 344	3696	Phe-106 to Pro-114.	

HODKK77	HODKK77R	1522	272 - 433	3697		H0615: 2
HODKL56	HODKL56R	1523	439 - 579	3698		
HODKM25	HODKM25R	1524	36 - 149	3699		
HODKM31	HODKM31R	1525	1 - 210	3700		H0659: 4, L0770: 3, L0747: 3, H0663: 2, S0360: 2, L0521: 2, L0776: 2, S0126: 2, H0658: 2, S0406: 2, L0755: 2, L0758: 2, L0759: 2, S0242: 2, T0002: 1, H0686: 1, H0341: 1, L0616: 1, S0354: 1, S0408: 1, H0052: 1, H0009: 1, H0083: 1, H0266: 1, H0615: 1, L0483: 1, H0040: 1, H0561: 1, S0422: 1, L0520: 1, L0625: 1, L0662: 1, L0766: 1, L0649: 1, L0519: 1, H0648: 1, S3014: 1, L0748: 1 and L0779: 1.
HODKN65	HODKN65R	1526	2 - 409	3701		
HOECR39	HOECR39R	1527	20 - 328	3702	Ser-8 to Asn-15.	
HOFAB77	HOFAB77R	1528	1 - 399	3703	Glu-10 to Ala-26, Lys-31 to Tyr-43, Lys-45 to Glu-50, Ile-96 to Lys-102, Asp-123 to Gly-128.	

HOFMF37	HOFMF37R	1529	95 - 277	3704		
HOFMF79	HOFMF79RA	1530	85 - 219	3705		
HOFMJ88	HOFMJ88R	1531	2 - 397	3706	Arg-1 to Phe-16.	
HOFMJ93	HOFMJ93R	1532	1 - 162	3707	His-3 to Ala-19.	
HOFMM84	HOFMM84R	1533	1 - 204	3708		
HOFMN93	HOFMN93R	1534	69 - 323	3709	Glu-8 to Thr-14.	H0415: 2
HOFMP59	HOFMP59R	1535	1 - 423	3710	Ala-5 to Arg-14.	
HOFMT68	HOFMT68R	1536	50 - 289	3711	Asn-41 to Lys-56.	
HOFMT69	HOFMT69R	1537	1 - 264	3712		
HOFMU92	HOFMU92R	1538	1 - 369	3713		
HOFMV06	HOFMV06R	1539	3 - 296	3714	Asp-1 to Leu-10.	
HOFNF63	HOFNF63R	1540	2 - 481	3715	Arg-1 to Arg-8, Ala-22 to Met-31, Asp-51 to Gln-56.	H0415: 2
HOFNF76	HOFNF76R	1541	2 - 421	3716	Arg-1 to Ala-6, Ser-68 to Arg-73, Arg-87 to Ala-93.	
HOFNG51	HOFNG51R	1542	25 - 387	3717	Arg-1 to Cys-10, Glu-75 to Arg-94, Arg-99 to Gly-115.	
HOFNK44	HOFNK44R	1543	1 - 186	3718	Lys-52 to Asp-57.	
HOFNY53	HOFNY53R	1544	2 - 232	3719	Arg-1 to Phe-7, Gly-24 to Arg-36.	
HOFOB65	HOFOB65R	1545	1 - 453	3720		
HOFOB79	HOFOB79RP00A	1546	2 - 682	3721	Val-31 to Val-38, Phe-46 to Ile-59, Arg-120 to Gln-126.	
HOFOE22	HOFOE22R	1547	1 - 345	3722		
HOFOF47	HOFOF47R	1548	3 - 326	3723	Asn-49 to Leu-54.	

HOFOF56	HOFOF56R	1549	1 - 351	3724	Ala-4 to Arg-11.	
HOGAC46	HOGAC46R	1550	35 - 193	3725	Ala-1 to Tyr-6, Ile-17 to Ser-32.	
HOGAQ03	HOGAQ03R	1551	110 - 286	3726	Pro-34 to Lys-39.	H0436: 44, L0748: 14, L0439: 9, L0747: 9, L0769: 7, L0803: 7, L0740: 7, L0755: 7, L0758: 7, L0761: 6, L0662: 6, L0794: 6, L0766: 6, L0663: 6, L0779: 6, H0542: 6, L0717: 5, L0756: 5, H0052: 4, H0135: 4, L0774: 4, L0659: 4, L0665: 4, L0777: 4, L0780: 4, L0731: 4, L0759: 4, H0556: 3, S0420: 3, S0410: 3, S0422: 3, L0763: 3, L0649: 3, L0804: 3, L0805: 3, L0776: 3, L0438: 3, H0547: 3, H0672: 3, H0539: 3, L0754: 3, L0757: 3, L0591: 3, H0422: 3, S0040: 2, S0114: 2, S0116: 2, H0255: 2, H0619: 2, H0486: 2, T0039: 2, H0013: 2, H0635: 2, H0253: 2,

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| L0800: 1, L0642: 1, |
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| L0382: 1, L0789: 1, |
| L0792: 1, L0664: 1, |
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| S0126: 1, H0689: 1, |
| H0690: 1, H0682: 1, |
| H0435: 1, H0670: 1, |
| H0648: 1, S0330: 1, |

HOGBE60	HOGBE60R	1552	265 - 591	3727	Asp-15 to His-22.	
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HOGCF48	HOGCF48R	1553	230 - 436	3728	H0435: 1, S0330: 1, S0406: 1, L0740: 1, L0751: 1, L0780: 1, S0436: 1 and L0596: 1.
HOGCG83	HOGCG83R	1554	50 - 409	3729	
HOGCH23	HOGCH23R	1555	58 - 207	3730	
HOGCI28	HOGCI28R	1556	3 - 332	3731	H0435: 4, H0726: 3, L0748: 3, H0355: 2, H0059: 2, L0525: 2, H0713: 1, H0717: 1, H0586: 1, H0427: 1, H0575: 1, H0744: 1, H0327: 1, H0271: 1, H0622: 1, H0087: 1, S0438: 1, L0792: 1, H0593: 1, H0555: 1, L0698: 1 and H0506: 1.
HOGCI10	HOGCI10R	1557	10 - 480	3732	H0052: 1, H0135: 1, H0429: 1, H0519: 1 and H0435: 1.
HOGCJ42	HOGCJ42R	1558	3 - 254	3733	Val-6 to Ala-11.
HOGCJ55	HOGCJ55R	1559	7 - 507	3734	Thr-56 to Glu-61, Lys-87 to Lys-95, Thr-110 to Arg-118.
HOGCP07	HOGCP07R	1560	3 - 143	3735	
HOGCP86	HOGCP86RA	1561	1 - 486	3736	Arg-11 to Arg-16, Pro-46 to Thr-52, His-58 to Pro-65,

					Ala-71 to Trp-77, Pro-134 to Gly-146.
HOGCT44	HOGCT44R	1562	1 - 183	3737	His-14 to Phe-20, Ser-37 to Gly-60.
HOGCV85	HOGCV85R	1563	3 - 443	3738	Gly-20 to Leu-28, Val-33 to Gly-41, Thr-43 to Gly-55, Val-58 to Arg-66.
HOGCV93	HOGCV93R	1564	22 - 513	3739	Lys-7 to Thr-13, Asp-24 to Thr-30, Gly-39 to Glu-52, Leu-70 to Arg-76, Phe-87 to Tyr-92.
HOGCY12	HOGCY12R	1565	2 - 235	3740	Lys-2 to Thr-8, Asp-19 to Thr-25, Gly-34 to Glu-47, Leu-65 to Arg-71.
HOGCY58	HOGCY58R	1566	3 - 338	3741	Asn-5 to Gln-12, Gln-19 to Glu-25, Arg-78 to Glu-99, Thr-106 to Ala-111.
HOGCY74	HOGCY74R	1567	3 - 260	3742	Arg-1 to Asn-8, Phe-18 to His-24, Asp-57 to Lys-62, Lys-76 to Asp-81.
HOGDD29	HOGDD29R	1568	3 - 152	3743	
HOGDE77	HOGDE77R	1569	95 - 184	3744	
HOGDG03	HOGDG03R	1570	2 - 397	3745	Thr-9 to His-19, Leu-35 to Ala-46,

HOGDG76	HOGDG76R	1571	3 - 497	3746	Pro-55 to Pro-60, Gly-69 to Arg-74.	
					Arg-35 to Gly-40, His-51 to Lys-56, Phe-94 to Ser-99, Thr-102 to Gly-107, Pro-113 to Ser-120.	L0665: 3, H0682: 2, H0435: 2, L0751: 2, H0663: 1, L0021: 1, H0647: 1, L0806: 1, L0664: 1, H0683: 1, H0670: 1 and H0660: 1.
HOGDI44	HOGDI44R	1572	1 - 342	3747	Gln-58 to Gln-64, Cys-73 to Arg-88.	
HOGDI49	HOGDI49R	1573	124 - 357	3748		
HOGDO25	HOGDO25R	1574	2 - 322	3749	Pro-38 to Met-44.	
HOGDO58	HOGDO58R	1575	74 - 244	3750	Pro-6 to Tyr-17, Val-39 to Gln-45.	
HOGDP10	HOGDP10R	1576	3 - 299	3751	Glu-3 to Glu-14.	
HOGDQ54	HOGDQ54R	1577	3 - 335	3752		
HOGDQ95	HOGDQ95R	1578	22 - 492	3753	Arg-9 to Val-17.	
HOGDR70	HOGDR70R	1579	48 - 470	3754	Arg-9 to Arg-18, Arg-27 to Arg-35, Arg-47 to Asp-55, Asp-78 to Lys-83.	
HOGDV93	HOGDV93R	1580	1 - 417	3755	Gly-1 to Ala-6, Glu-54 to Ile-62, Asp-89 to Thr-98.	
HOGEA27	HOGEA27R	1581	2 - 241	3756		
HOGED85	HOGED85R	1582	3 - 326	3757	Tyr-94 to Phe-99.	
HOGEK25	HOGEK25R	1583	2 - 325	3758		
HOGEN30	HOGEN30R	1584	2 - 325	3759	Leu-3 to Arg-19.	
HOGEN55	HOGEN55R	1585	2 - 226	3760		

HOGEP46	HOGEP46R	1586	3 - 212	3761			
HOGEP69	HOGEP69R	1587	2 - 223	3762			
HOGET60	HOGET60R	1588	2 - 376	3763	Gly-17 to Asn-27, Ser-51 to His-61.	L0521: 1, L0662: 1 and H0435: 1.	H0295: 8, H0617: 7, L0665: 7, H0435: 7, H0592: 6, H0494: 6, L0439: 6, L0751: 6, S0360: 5, S0046: 4, H0587: 4, H0012: 4, H0264: 4, L0662: 4, S0406: 4, H0586: 3, H0620: 3, H0031: 3, H0551: 3, S0440: 3, S0002: 3, L0763: 3, L0648: 3, L0649: 3, L0774: 3, L0659: 3, H0520: 3, H0547: 3, H0689: 3, H0660: 3, S0328: 3, S0330: 3, L0748: 3, L0754: 3, L0750: 3, H0294: 2, H0650: 2, H0341: 2, S0356: 2, S0132: 2, H0370: 2, H0333: 2, H0643: 2, L0623: 2, H0706: 2, H0081: 2, H0039: 2, H0553: 2, H0181: 2, H0068: 2, H0135: 2, H0040: 2, H0646: 2, L0640: 2,

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			3764	Pro-8 to Asn-34, Ala-39 to Arg-53.		AR096: 1, AR104: 1, AR055: 0, AR061: 0, AR060: 0, AR089: 0 S0250: 1 and H0435: 1.
HOGEW58	HOGEW58R	1590	1 - 417	3765		
HOGEW72	HOGEW72R	1591	256 - 333	3766		
HOGEZ03	HOGEZ03R	1592	52 - 144	3767		
HOGEZ27	HOGEZ27R	1593	2 - 307	3768		
HOHDI15	HOHDI15R	1594	3 - 170	3769		
HOOHB44	HOOHB44R	1595	128 - 313	3770	Ser-1 to Gln-6, Ser-51 to Thr-56.	
HOOHC27	HOOHC27R	1596	9 - 194	3771	Gly-4 to Lys-10.	
HOOHJ69	HOOHJ69R	1597	9 - 152	3772	Gly-4 to Lys-10.	H0637: 2, H0413: 1 and H0648: 1.
HOOHK47	HOOHK47R	1598	126 - 260	3773		
HOOHL15	HOOHL15R	1599	60 - 383	3774		
HOOHL19	HOOHL19R	1600	14 - 205	3775	Pro-17 to Ser-24.	

HOOHL68	HOOHL68R	1601	271 - 570	3776	
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Gene	Clone	No.	Range	SEQ ID	Description	Library
HOOHP84	HOOHP84R	1602	1 - 186	3777		L0438: 1, H0672: 1, H0522: 1, S0392: 1, L0747: 1, L0749: 1, L0756: 1, L0752: 1, H0445: 1, L0591: 1 and H0422: 1.
HOOHQ09	HOOHQ09R	1603	161 - 313	3778	Lys-1 to Lys-13.	
HOOHQ83	HOOHQ83R	1604	67 - 399	3779	Pro-10 to Ser-37, Gln-41 to Thr-57, Arg-62 to Thr-68, Pro-80 to Lys-85, Gly-99 to Gly-106.	
HOOHR81	HOOHR81R	1605	336 - 500	3780		
HOOHS67	HOOHS67R	1606	69 - 281	3781		
HOOHS82	HOOHS82R	1607	53 - 145	3782		
HOOHT13	HOOHT13R	1608	3 - 194	3783	Glu-1 to Glu-11.	
HOOHX50	HOOHX50R	1609	17 - 163	3784		
HOOIA46	HOOIA46R	1610	3 - 239	3785		L0770: 12, H0657: 10, H0659: 9, L0776: 8, H0648: 8, L0755: 8, L0774: 7, S0410: 6, H0494: 6, L0769: 6, L0750: 6, S0408: 5, S0440: 5, L0775: 5, S0376: 4, S0360: 4, L0748: 4, L0777: 4, L0752: 4, L0759: 4, H0341: 3, S0358: 3,

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H0556: 2, H0685: 2,
H0656: 2, S0420: 2,
S0444: 2, T0109: 2,
H0156: 2, H0545: 2,
L0471: 2, H0031: 2,
H0040: 2, H0560: 2,
L0065: 2, S0438: 2,
L0763: 2, L0772: 2,
L0764: 2, L0518: 2,
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S0374: 2, H0520: 2,
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L0753: 2, H0445: 2,
S0434: 2, H0665: 2,
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H0351: 1, H0369: 1,
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H0331: 1, H0069: 1,
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| H0662: 1, H0638: 1, |
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| H0580: 1, S0007: 1, |
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| H0369: 1, H0600: 1, |
| H0587: 1, H0497: 1, |
| H0427: 1, L0021: 1, |
| H0575: 1, S0010: 1, |
| H0581: 1, H0421: 1, |
| H0263: 1, T0115: 1, |
| H0545: 1, L0471: 1, |
| S0051: 1, H0510: 1, |
| H0375: 1, S0003: 1, |
| H0328: 1, H0428: 1, |
| H0039: 1, H0622: 1, |
| L0483: 1, H0031: 1, |

HOOIB34	HOOIB34R	1612	46 - 153	3787	
HOOIB54	HOOIB54R	1613	2 - 199	3788	H0553: 1, H0644: 1, H0628: 1, H0673: 1, S0364: 1, H0316: 1, H0598: 1, H0090: 1, H0087: 1, H0551: 1, T0067: 1, H0488: 1, H0623: 1, H0494: 1, L0475: 1, H0560: 1, H0509: 1, S0150: 1, H0641: 1, S0422: 1, S0426: 1, H0529: 1, L0770: 1, L0761: 1, L0627: 1, L0646: 1, L0773: 1, L0521: 1, L0768: 1, L0766: 1, L0527: 1, L0647: 1, L0789: 1, L0663: 1, S0428: 1, S0374: 1, H0519: 1, H0435: 1, H0659: 1, H0672: 1, H0518: 1, H0522: 1, H0134: 1, L0356: 1, L0745: 1, L0747: 1, L0779: 1, L0759: 1, L0589: 1, L0592: 1, L0608: 1, L0594: 1, S0026: 1, H0136: 1 and S0242: 1.

HOOIF71	HOOIF71R	1614	3 - 389	3789		
HOOIG71	HOOIG71R	1615	2 - 301	3790	Ile-1 to Lys-7, Gly-13 to Lys-19, Pro-59 to Arg-76.	
HOOIK04	HOOIK04R	1616	2 - 172	3791	Val-50 to Arg-56.	
HOOIL33	HOOIL33R	1617	97 - 264	3792	Leu-41 to Ser-52.	
HOOIO53	HOOIO53R	1618	3 - 164	3793		
HOOIR94	HOOIR94R	1619	20 - 109	3794		
HOOJA64	HOOJA64R	1620	272 - 400	3795		
HOOJB36	HOOJB36R	1621	118 - 315	3796		
HOOJE93	HOOJE93R	1622	125 - 268	3797		
HOOJK91	HOOJK91R	1623	80 - 211	3798		
HOOJN84	HOOJN84R	1624	1 - 189	3799	Asp-48 to Thr-54, Glu-57 to Ser-63.	L0758: 14, L0747: 10, L0752: 10, L0731: 10, L0663: 9, H0547: 9, L0740: 9, L0666: 8, H0046: 7, S0126: 7, L0748: 7, H0539: 6, L0439: 6, L0759: 6, L0595: 6, H0543: 6, H0050: 5, H0031: 5, H0648: 5, S0328: 5, H0624: 4, H0657: 4, H0656: 4, S0007: 4, H0549: 4, H0550: 4, H0591: 4, H0616: 4, H0551: 4, L0769: 4, L0662: 4, L0659: 4, L0144: 4, L0438: 4,

L0749: 4, L0750: 4, L0755: 4, H0663: 3, S0418: 3, H0619: 3, L0717: 3, H0013: 3, L0163: 3, H0553: 3, H0090: 3, L0763: 3, L0770: 3, L0766: 3, L0774: 3, L0664: 3, L0665: 3, H0519: 3, H0521: 3, L0742: 3, L0591: 3, S0276: 3, H0171: 2, H0341: 2, S0356: 2, S0360: 2, H0393: 2, S0300: 2, H0156: 2, H0150: 2, H0011: 2, H0687: 2, S0003: 2, H0328: 2, L0483: 2, H0634: 2, H0494: 2, H0560: 2, H0561: 2, H0646: 2, L0638: 2, L0646: 2, L0374: 2, L0764: 2, L0776: 2, L0655: 2, L0657: 2, H0520: 2, H0660: 2, H0134: 2, L0605: 2, L0593: 2, H0542: 2, S6024: 1, H0583: 1, S0116: 1, H0483: 1, S0420: 1, S0358: 1, S0408: 1,

H0580: 1, S0045: 1,
H0440: 1, H0431: 1,
T0104: 1, H0600: 1,
H0632: 1, H0559: 1,
H0485: 1, H0069: 1,
S0280: 1, L0021: 1,
H0042: 1, H0706: 1,
H0505: 1, H0581: 1,
H0421: 1, H0052: 1,
L0471: 1, S0051: 1,
H0266: 1, H0267: 1,
S0316: 1, H0028: 1,
H0252: 1, H0615: 1,
H0644: 1, H0169: 1,
H0598: 1, H0163: 1,
H0038: 1, H0372: 1,
H0412: 1, H0413: 1,
H0623: 1, T0004: 1,
S0372: 1, S0448: 1,
S0440: 1, S0150: 1,
S0344: 1, S0422: 1,
L0598: 1, L0369: 1,
L0520: 1, L0762: 1,
L0761: 1, L0648: 1,
L0521: 1, L0363: 1,
L0649: 1, L0650: 1,
L0523: 1, L0806: 1,
L0653: 1, L0606: 1,
L0661: 1, L0527: 1,
L0809: 1, H0658: 1,

HOOJP58	1625	93 - 248	3800		H0672: 1, S0330: 1, S0152: 1, H0696: 1, S0406: 1, H0555: 1, H0478: 1, S0432: 1, L0786: 1, S0260: 1, H0445: 1, L0366: 1, S0026: 1, H0667: 1, H0423: 1, S0424: 1, S0446: 1 and H0008: 1.
HOOJR60	1626	160 - 306	3801		H0648: 2, H0436: 2, L0748: 2, S0360: 1, L0766: 1, L0803: 1 and L0779: 1.
HOOJR72	1627	77 - 265	3802		
HOOJS84	1628	78 - 290	3803		
HOOJT32	1629	1 - 237	3804		
HOOJT65	1630	2 - 340	3805	Ala-2 to Asp-10.	
HOOJV78	1631	318 - 560	3806		H0486: 1 and H0648: 1.
HOOJX42	1632	317 - 463	3807		
HOOJX80	1633	106 - 267	3808	Arg-11 to Pro-22, Asn-42 to Lys-48.	L0731: 2, H0483: 1, T0007: 1, T0039: 1, H0562: 1, L0769: 1, L0766: 1, H0670: 1, H0648: 1, L0756: 1, L0755: 1, L0758: 1, L0759: 1 and L0485: 1.
HOOJY17	1634	147 - 479	3809	Pro-8 to Phe-18.	

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HOOJY41	HOOJY41R	1635	51 - 347	3810	
HOOJY44	HOOJY44R	1636	2 - 184	3811	Gln-1 to Cys-7, Asn-14 to Lys-22, Arg-29 to Leu-34, Glu-46 to Leu-54:
HOOJY80	HOOJY80R	1637	1 - 462	3812	Ala-1 to Pro-6, Ala-22 to Glu-27, Glu-36 to Ser-45, Glu-62 to Gly-67, Gln-74 to Phe-83, Thr-90 to Ser-96, His-105 to Pro-116.
HOOJY92	HOOJY92R	1638	3 - 437	3813	H0547: 16, H0090: 11, H0543: 10, H0542: 9, H0341: 8, L0471: 8, H0551: 8, S0358: 7, H0561: 7, S0126: 7, H0521: 7, H0657: 5, H0013: 5, S0440: 5, H0529: 5, H0144: 5, H0519: 5, H0265: 4, S0040: 4, H0264: 4, H0560: 4, H0520: 4, S0027: 4, L0731: 4, L0591: 4, L0592: 4, L0595: 4, H0423: 4, S0424: 4, H0170: 3, H0686: 3, H0638: 3, S0360: 3, S0410: 3, H0580: 3, H0486: 3.

H0318: 3, H0510: 3, H0266: 3, H0553: 3, H0591: 3, H0040: 3, H0634: 3, S0150: 3, L0803: 3, L0657: 3, H0435: 3, S0152: 3, L0740: 3, L0747: 3, S0436: 3, L0588: 3, H0556: 2, S0116: 2, H0663: 2, S0356: 2, S0354: 2, S0376: 2, S0046: 2, H0393: 2, H0642: 2, H0574: 2, T0109: 2, H0635: 2, S0010: 2, T0110: 2, H0012: 2, H0083: 2, S0214: 2, H0038: 2, T0041: 2, T0042: 2, H0494: 2, H0647: 2, S0422: 2, S0002: 2, L0554: 2, H0660: 2, H0518: 2, S0406: 2, L0593: 2, H0667: 2, H0624: 1, H0171: 1, H0159: 1, S0114: 1, H0656: 1, H0484: 1, H0661: 1, H0664: 1, H0450: 1, S0442: 1, S0045: 1, H0619: 1, H0550: 1, S0222: 1,

H0600: 1, H0586: 1, T0039: 1, T0040: 1, H0244: 1, H0069: 1, H0575: 1, H0004: 1, S0665: 1, H0581: 1, H0421: 1, S0049: 1, H0052: 1, T0115: 1, H0327: 1, H0572: 1, H0050: 1, H0620: 1, H0355: 1, S6028: 1, S0316: 1, H0290: 1, H0286: 1, H0615: 1, H0039: 1, H0622: 1, H0031: 1, H0316: 1, S0036: 1, H0616: 1, H0412: 1, H0056: 1, S0038: 1, S0112: 1, H0128: 1, H0429: 1, H0334: 1, H0625: 1, H0386: 1, H0509: 1, H0641: 1, H0633: 1, S0210: 1, S0426: 1, L0761: 1, L0800: 1, L0764: 1, L0773: 1, L0775: 1, L0663: 1, S0006: 1, S0148: 1, L0438: 1, H0593: 1, H0689: 1, H0670: 1, H0666: 1, H0648: 1, S0328: 1, S0330: 1,

HOOKK83	HOOKK83R	1639	107 - 367	3814		S0378: 1, H0696: 1, H0134: 1, H0555: 1, S0037: 1, S0206: 1, L0749: 1, S0031: 1, S0260: 1, H0445: 1, S0434: 1, L0599: 1, L0594: 1, H0422: 1 and S0456: 1.
HOOKN43	HOOKN43R	1640	118 - 453	3815		
HOOKN71	HOOKN71R	1641	210 - 344	3816	Asp-1 to Lys-22.	H0657: 3, L0717: 2, H0421: 2, L0766: 2, L0666: 2, L0756: 2, L0759: 2, H0717: 1, H0587: 1, H0156: 1, L0021: 1, H0581: 1, H0014: 1, H0252: 1, S0422: 1, L0662: 1, L0794: 1, L0655: 1, L0809: 1, L0543: 1, L0791: 1, L0665: 1, H0658: 1, H0670: 1, H0648: 1, H0672: 1, H0696: 1, L0780: 1, S0434: 1 and H0506: 1.
HOPJA09	HOPJA09R	1642	14 - 196	3817	Pro-20 to Gly-38.	
HOPJF95	HOPJF95R	1643	107 - 571	3818		
HOPJG60	HOPJG60R	1644	207 - 461	3819	Gly-69 to Glu-78.	L0775: 5, L0776: 5, L0747: 5, L0604: 5, L0769: 4, L0805: 4,

| HOPJG66 | HOPJG66R | 1645 | 2 - 136 | 3820 | Pro-4 to Ser-29, Pro-31 to Ser-38. | L0777: 3, L0759: 3, L0774: 2, L0809: 2, L0758: 2, H0341: 1, H0484: 1, S0358: 1, S0444: 1, S0360: 1, S6026: 1, S0278: 1, H0156: 1, H0038: 1, H0616: 1, H0102: 1, L0770: 1, L0766: 1, L0804: 1, L0657: 1, L0789: 1, H0684: 1, H0696: 1, S0044: 1, L0756: 1 and L0780: 1. | H0547: 41, L0751: 26, H0520: 18, S0344: 12, L0731: 11, T0006: 9, L0794: 9, L0753: 8, L0593: 8, S0278: 6, L0809: 6, H0135: 5, S0142: 5, L0800: 5, L0665: 5, L0743: 5, L0747: 5, H0024: 4, S0328: 4, L0759: 4, H0661: 3, H0594: 3, H0617: 3, L0657: 3, H0658: 3, H0666: 3, L0750: 3, L0752: 3, H0352: 3, H0664: 2, H0662: 2, H0041: 2, H0123: 2, H0081: 2. |

H0050: 2, H0099: 2,
H0494: 2, S0002: 2,
L0769: 2, L0806: 2,
L0517: 2, L0382: 2,
H0684: 2, H0660: 2,
H0539: 2, S0152: 2,
L0748: 2, L0587: 2,
L0595: 2, H0294: 1,
H0656: 1, H0484: 1,
H0669: 1, H0208: 1,
H0619: 1, H0586: 1,
H0333: 1, H0427: 1,
H0052: 1, H0251: 1,
H0546: 1, H0545: 1,
H0012: 1, H0688: 1,
H0181: 1, H0606: 1,
H0334: 1, H0646: 1,
S0144: 1, S0426: 1,
L0762: 1, L0640: 1,
L0763: 1, L0637: 1,
L0662: 1, L0386: 1,
L0803: 1, L0804: 1,
L0774: 1, L0378: 1,
L0805: 1, L0629: 1,
L0558: 1, L0659: 1,
L0783: 1, L0791: 1,
H0689: 1, H0648: 1,
S0330: 1, S0332: 1,
H0436: 1, H0540: 1,
S0028: 1, L0744: 1,

HOPJG79	HOPJG79R	1646	3 - 542	3821	Ala-83 to Arg-91, Trp-99 to Tyr-105, Tyr-123 to Glu-128.	L0755: 1, L0757: 1, L0758: 1 and S0276: 1.
HOPJG89	HOPJG89R	1647	166 - 597	3822	Gly-2 to Ala-13.	
HOPJH17	HOPJH17R	1648	321 - 464	3823		
HOPJH38	HOPJH38R	1649	148 - 285	3824		S0412: 22, L0662: 19, L0777: 14, S0010: 11, S0222: 9, S6028: 9, L0750: 9, T0010: 8, L0659: 8, L0747: 8, L0756: 8, L0663: 7, L0439: 7, H0051: 6, L0518: 6, L0754: 6, L0752: 6, S0280: 5, H0575: 5, S0358: 4, S0346: 4, L0753: 4, H0170: 3, H0662: 3, S0360: 3, H0427: 3, L0471: 3, H0373: 3, L0638: 3, L0637: 3, L0764: 3, L0774: 3, L0809: 3, L0666: 3, S0310: 3, H0672: 3, H0696: 3, L0731: 3, H0506: 3, H0713: 2, S0408: 2, H0411: 2, H0455: 2, H0574: 2, S0414: 2, H0486: 2,

H0036: 2, S0049: 2, H0052: 2, H0327: 2, H0687: 2, H0428: 2, H0553: 2, H0644: 2, H0038: 2, L0520: 2, L0762: 2, L0770: 2, L0653: 2, L0517: 2, S0044: 2, L0442: 1, H0583: 1, L0443: 1, S0110: 1, S0282: 1, S0400: 1, H0661: 1, S0348: 1, S0356: 1, S0444: 1, H0329: 1, S0007: 1, H0619: 1, S6026: 1, S0300: 1, L0717: 1, S6022: 1, H0550: 1, H0592: 1, H0587: 1, H0599: 1, H0042: 1, H0590: 1, H0318: 1, H0309: 1, H0545: 1, H0563: 1, H0564: 1, H0123: 1, H0019: 1, S0050: 1, L0163: 1, S0388: 1, H0356: 1, H0328: 1, H0688: 1, H0039: 1, T0023: 1, H0031: 1, H0111: 1, H0169: 1, S0364: 1, L0455: 1, H0135: 1, H0163: 1,

| HOPJH65 | HOPJH65R | 1650 | 6 - 497 | 3825 | Ala-1 to Gly-11, Asn-20 to Pro-25. | T0067: 1, T0069: 1, T0004: 1, H0100: 1, S0112: 1, L0370: 1, L0598: 1, L0769: 1, L0630: 1, L0800: 1, L0648: 1, L0363: 1, L0768: 1, L0649: 1, L0803: 1, L0775: 1, L0375: 1, L0651: 1, L0784: 1, L0523: 1, L0805: 1, L0776: 1, L0527: 1, L0657: 1, L0635: 1, L0783: 1, L0789: 1, L0532: 1, L0664: 1, H0691: 1, T0068: 1, S0148: 1, H0693: 1, H0520: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, S0380: 1, S0174: 1, H0555: 1, L0612: 1, L0743: 1, L0748: 1, L0751: 1, L0749: 1, L0779: 1, L0759: 1, L0689: 1, S0434: 1, L0604: 1, L0366: 1, S0106: 1 and S0021: 1. |
| HOPJM63 | HOPJM63R | 1651 | 101 - 250 | 3826 | Pro-20 to Glu-25, | S0010: 1, H0327: 1, |

HOPJU10	HOPJU10R	1652	78 - 269	3827	Phe-15 to Ser-22.	Lys-31 to Gly-36.
					L0665: 7, L0747: 7, L0662: 6, L0766: 6, L0655: 5, L0659: 5, S0126: 5, L0717: 4, H0370: 4, L0763: 4, L0770: 4, L0646: 4, H0521: 4, L0748: 4, S0360: 3, H0009: 3, S0142: 3, S0344: 3, L0771: 3, L0774: 3, L0775: 3, L0663: 3, L0664: 3, L0740: 3, L0751: 3, L0750: 3, L0758: 3, L0601: 3, H0265: 2, H0657: 2, S0418: 2, S0420: 2, S0045: 2, T0039: 2, H0024: 2, T0010: 2, H0413: 2, S0144: 2, S0210: 2, L0667: 2, L0372: 2, L0642: 2, L0765: 2, L0653: 2, L0383: 2, L0666: 2, L0744: 2, L0439: 2, L0754: 2, L0756: 2, L0731: 2, L0599: 2, H0543: 2, L0615: 1,	H0039: 1, H0622: 1, S0464: 1, L0803: 1, H0684: 1 and H0670: 1.

H0556: 1, H0295: 1,
S0114: 1, H0656: 1,
L0778: 1, S0282: 1,
H0255: 1, H0661: 1,
H0402: 1, S0354: 1,
S0358: 1, S0376: 1,
H0351: 1, S0222: 1,
H0600: 1, H0586: 1,
H0333: 1, H0250: 1,
T0082: 1, H0318: 1,
H0421: 1, H0052: 1,
L0738: 1, H0327: 1,
H0051: 1, H0083: 1,
S0003: 1, S0022: 1,
S0214: 1, H0092: 1,
T0023: 1, L0483: 1,
T0006: 1, H0030: 1,
H0628: 1, H0181: 1,
H0169: 1, H0090: 1,
H0058: 1, L0351: 1,
T0041: 1, H0494: 1,
S0015: 1, L0065: 1,
S0426: 1, L0640: 1,
L0769: 1, L0772: 1,
L0641: 1, L0374: 1,
L0764: 1, L0773: 1,
L0648: 1, L0626: 1,
L0768: 1, L0649: 1,
L0784: 1, L0378: 1,
L0806: 1, L0776: 1,

| HOPJX48 | HOPJX48R | 1653 | 1 - 207 | 3828 | Arg-5 to His-22, Ser-59 to Ala-69. | L0807: 1, L0657: 1, L0656: 1, L0783: 1, S0052: 1, S0428: 1, L0438: 1, H0547: 1, H0690: 1, H0682: 1, H0684: 1, H0670: 1, H0660: 1, H0672: 1, H0522: 1, H0187: 1, H0576: 1, S0027: 1, S0206: 1, L0743: 1, L0757: 1, L0605: 1, L0590: 1, L0591: 1, L0581: 1, L0595: 1, S0026: 1, H0665: 1, H0667: 1, H0542: 1, H0423: 1 and H0352: 1. | H0445: 13, H0255: 11, L0666: 7, H0575: 5, H0059: 4, S0344: 4, L0655: 4, H0521: 4, H0522: 4, L0748: 4, L0751: 4, H0556: 3, S0278: 3, H0013: 3, H0181: 3, H0617: 3, S0142: 3, H0658: 3, H0660: 3, L0439: 3, H0423: 3, S0116: 2, H0341: 2, S0360: 2, H0580: 2, H0581: 2, H0014: 2, H0087: 2, |

L0663: 2, L0664: 2,
L0665: 2, H0684: 2,
L0741: 2, L0743: 2,
H0170: 1, H0171: 1,
H0265: 1, H0583: 1,
H0657: 1, H0656: 1,
L0470: 1, H0254: 1,
H0664: 1, H0662: 1,
S0420: 1, S0408: 1,
H0393: 1, H0392: 1,
H0613: 1, H0333: 1,
L0622: 1, H0101: 1,
H0250: 1, H0427: 1,
L0021: 1, H0253: 1,
S0346: 1, H0421: 1,
H0596: 1, H0150: 1,
H0620: 1, H0024: 1,
H0428: 1, H0553: 1,
H0169: 1, H0674: 1,
S0366: 1, H0163: 1,
H0040: 1, H0616: 1,
H0063: 1, H0026: 1,
H0517: 1, L0640: 1,
L0770: 1, L0769: 1,
L0761: 1, L0773: 1,
L0559: 1, L0659: 1,
L0790: 1, H0144: 1,
H0593: 1, H0690: 1,
H0709: 1, H0696: 1,
H0187: 1, L0744: 1,

HOPJY50	HOPJY50R	1654	273 - 395	3829		S0031: 1 and H0543: 1.
HOPIZ59	HOPIZ59R	1655	2 - 163	3830	Pro-35 to Arg-48.	
HOPKA06	HOPKA06R	1656	2 - 676	3831	Arg-19 to Tyr-24, Asp-75 to Glu-87, Asn-102 to Cys-109, Ser-113 to Lys-118, Tyr-154 to Ser-169.	AR096: 4, AR089: 3, AR061: 1, AR055: 1, AR060: 1, AR104: 1 H0684: 2 and L0731: 1.
HOPKC65	HOPKC65R	1657	26 - 232	3832	Leu-39 to Ser-51.	
HOPKD31	HOPKD31R	1658	3 - 191	3833	Ser-50 to Pro-57.	
HOPKG16	HOPKG16R	1659	1 - 456	3834	Asn-80 to Gly-86.	
HOPKG47	HOPKG47R	1660	1 - 579	3835	Pro-6 to Thr-34, Asp-57 to Gly-62, Gly-77 to Glu-83, Lys-108 to Asp-116, Met-145 to Arg-159.	
HOPKG83	HOPKG83R	1661	1 - 663	3836	Ser-72 to Ala-78, Asp-94 to Gly-100, Thr-104 to Asp-111, Ser-117 to Arg-133, Glu-138 to Lys-144, Lys-158 to Asp-165.	
HOPKK38	HOPKK38R	1662	3 - 455	3837	Ser-33 to Pro-42, Lys-53 to Cys-61.	H0494: 6, H0556: 5, H0265: 3, H0656: 3, H0618: 3, H0295: 2, H0255: 2, H0392: 2, H0575: 2, H0253: 2, H0052: 2, H0024: 2, H0617: 2, H0087: 2,

L0565: 2, H0547: 2, H0521: 2, L0744: 2, L0439: 2, H0136: 2, H0543: 2, H0224: 1, H0225: 1, H0585: 1, S0114: 1, H0341: 1, H0484: 1, H0483: 1, H0671: 1, S0418: 1, S0354: 1, S0408: 1, S0007: 1, S0045: 1, H0261: 1, H0550: 1, H0586: 1, H0587: 1, H0497: 1, H0643: 1, H0257: 1, H0559: 1, H0485: 1, H0486: 1, S0346: 1, T0048: 1, T0071: 1, H0309: 1, H0041: 1, H0081: 1, H0050: 1, H0012: 1, H0620: 1, H0051: 1, S0388: 1, H0071: 1, H0083: 1, H0354: 1, H0594: 1, H0266: 1, H0179: 1, H0271: 1, H0292: 1, H0428: 1, H0424: 1, H0181: 1, H0135: 1, H0090: 1, H0063: 1, H0488: 1, H0433: 1, H0100: 1, T0041: 1, S0440: 1,

HOPKN14	HOPKN14R	1663	2 - 460	3838	S0142: 1, H0538: 1, L0769: 1, L0764: 1, L0803: 1, L0809: 1, H0593: 1, H0683: 1, H0684: 1, H0435: 1, S0044: 1, L0747: 1, S0031: 1, H0445: 1, L0593: 1 and L0601: 1.
HOPKN67	HOPKN67R	1664	22 - 483	3839	Gly-63 to Ala-69, Gly-104 to Leu-110, Gly-130 to Gly-136.
HOPKO04	HOPKO04RA	1665	170 - 319	3840	L0803: 6, L0731: 4, S0440: 3, L0662: 3, L0809: 3, L0665: 3, S0276: 3, H0486: 2, H0318: 2, L0794: 2, L0805: 2, L0776: 2, L0663: 2, H0684: 2, L0740: 2, L0759: 2, L0592: 2, H0624: 1, L0448: 1, H0341: 1, S0282: 1, H0663: 1, S0360: 1, H0580: 1, L0468: 1, H0587: 1, H0427: 1, H0575: 1, S0010: 1, L0471: 1, H0644: 1, H0383: 1, H0169: 1, L0456: 1, H0090: 1, H0264: 1,

HOPKO61	HOPKO61R	1666	1 - 405	3841		H0412: 1, H0561: 1, S0150: 1, S0002: 1, H0529: 1, L0638: 1, L5565: 1, L0372: 1, L0649: 1, L0388: 1, L0659: 1, L0783: 1, L0789: 1, L0791: 1, H0519: 1, S0380: 1, H0522: 1, H0436: 1, L0747: 1, L0752: 1, L0757: 1, L0599: 1, H0542: 1, H0543: 1 and H0422: 1.
HOPKP45	HOPKP45R	1667	282 - 536	3842		
HOPKQ20	HOPKQ20R	1668	19 - 402	3843	Ser-19 to Arg-29, Asp-37 to Val-43, Ala-75 to Leu-80, Thr-96 to Arg-111.	
HOPKQ82	HOPKQ82R	1669	1 - 519	3844		
HOPKR56	HOPKR56R	1670	3 - 173	3845		L0439: 15, L0666: 8, S0222: 6, L0794: 5, L0638: 3, L0805: 3, L0664: 3, L0758: 3, L0592: 3, S0010: 2, L0770: 2, L0438: 2, H0624: 1, H0170: 1, S6024: 1, H0441: 1, S0414: 1, H0052: 1, H0572: 1, S6028: 1,

HOPKU33	HOPKU33R	1671	2 - 274	3846		H0688: 1, H0616: 1, L0769: 1, L0768: 1, L0803: 1, L0774: 1, L0776: 1, L0659: 1, L0809: 1, L0789: 1, L0792: 1, H0519: 1, H0684: 1, L0745: 1, L0747: 1, L0756: 1, L0786: 1, L0753: 1, L0731: 1, L0759: 1 and L0366: 1.
HOVBH23	HOVBH23R	1672	2 - 136	3847	Gly-1 to Val-7.	
HOVBK37	HOVBK37R	1673	237 - 551	3848	Pro-7 to Trp-14.	L0794: 16, L0809: 6, S0360: 4, H0617: 3, L0803: 3, S0114: 2, H0288: 2, H0688: 2, H0494: 2, L0375: 2, L0731: 2, L0588: 2, H0556: 1, S0134: 1, H0484: 1, S0420: 1, H0637: 1, H0441: 1, H0370: 1, H0438: 1, H0592: 1, T0109: 1, S0010: 1, H0150: 1, H0009: 1, H0081: 1, H0271: 1, H0428: 1, S0368: 1, H0424: 1, H0181: 1, H0124: 1, S0438: 1, S0440: 1,

1270

HOVBK49	HOVBK49R	1674	3 - 86	3849	His-7 to Lys-20.	S0144: 1, S0142: 1, S0344: 1, L0637: 1, L5566: 1, L0761: 1, L0764: 1, L0648: 1, L0662: 1, L0364: 1, L0766: 1, L5574: 1, L0805: 1, L0783: 1, L0647: 1, L0789: 1, L0665: 1, H0520: 1, H0547: 1, H0670: 1, H0660: 1, H0648: 1, S0380: 1, H0521: 1, H0555: 1, S3012: 1, L0748: 1, L0779: 1, L0780: 1, L0757: 1, L0759: 1 and H0352: 1.
HOVBS15	HOVBS15R	1675	144 - 404	3850	Glu-13 to Trp-32, Pro-34 to Asn-45.	
HOVBX41	HOVBX41R	1676	41 - 349	3851		
HOVCL23	HOVCL23R	1677	342 - 524	3852		S0360: 2, H0497: 2, H0333: 1, H0004: 1, H0428: 1, H0674: 1, S0422: 1, L0763: 1, L0803: 1, H0648: 1 and S0276: 1.
HOVCN03	HOVCN03R	1678	2 - 127	3853	Gly-1 to Glu-7, Gly-29 to Ala-36.	
HOVCO26	HOVCO26R	1679	395 - 580	3854		
HOVCU89	HOVCU89R	1680	3 - 578	3855	Lys-63 to Ser-69,	

HOVCV33	HOVCV33R	1681	1 - 471	3856	Tyr-95 to His-102, Tyr-105 to Leu-111.
HOVCW45	HOVCW45R	1682	2 - 226	3857	Ser-15 to Tyr-21, Gly-32 to Arg-37. H0615: 2, L0748: 2, H0656: 1, S0007: 1, H0486: 1, H0041: 1, H0355: 1, S0250: 1, S0003: 1, H0688: 1, H0428: 1, H0622: 1, T0042: 1, L0768: 1, L0657: 1, L0526: 1, H0702: 1, L0565: 1, H0547: 1, H0519: 1, S0152: 1, S0390: 1, L0745: 1, L0749: 1, L0779: 1, L0588: 1, L0608: 1 and L0593: 1.
HOVCY68	HOVCY68R	1683	333 - 551	3858	
HOVCZ45	HOVCZ45R	1684	53 - 220	3859	Ile-32 to Arg-37.
HOVDB43	HOVDB43R	1685	110 - 289	3860	
HOVDB61	HOVDB61R	1686	34 - 204	3861	
HOVDB62	HOVDB62R	1687	-1 - 270	3862	
HOVDB65	HOVDB65R	1688	37 - 498	3863	
HOVDD26	HOVDD26R	1689	24 - 257	3864	
HOVDE46	HOVDE46R	1690	253 - 393	3865	Asp-1 to Lys-6.
HOVDG60	HOVDG60R	1691	92 - 184	3866	
HOVDG71	HOVDG71R	1692	74 - 154	3867	
HOVDH09	HOVDH09R	1693	3 - 365	3868	Pro-1 to Tyr-8,

HOVDH75	HOVDH75R	1694	43 - 348	3869		
HOVDU91	HOVDU91R	1695	3 - 233	3870	Gln-14 to Gln-19, Arg-25 to Glu-37, Asn-44 to Arg-50, Glu-67 to Leu-75, Thr-105 to Gly-114.	L0794: 10, L0803: 7, L0747: 6, H0657: 5, H0597: 4, H0617: 4, L0764: 4, L0809: 4, L0758: 4, L0759: 4, L0800: 3, L0804: 3, L0775: 3, H0659: 3, H0543: 3, H0231: 2, L0471: 2, H0673: 2, H0674: 2, L0763: 2, L0770: 2, L0769: 2, L0768: 2, L0649: 2, L0375: 2, L0776: 2, H0658: 2, L0750: 2, L0779: 2, L0755: 2, L0731: 2, L0757: 2, L0596: 2, L0588: 2, S0026: 2, H0170: 1, H0483: 1, H0661: 1, H0402: 1, H0459: 1, S0360: 1, H0639: 1, L0717: 1, H0392: 1, H0607: 1, H0333: 1, H0486: 1, H0318: 1,

HOVDV70	HOVDV70R	1696	60 - 293	3871	Ile-12 to Gln-17.	H0251: 1, H0184: 1, H0045: 1, H0014: 1, S0388: 1, S0051: 1, H0594: 1, H0188: 1, H0687: 1, L0052: 1, H0328: 1, H0428: 1, H0181: 1, H0032: 1, H0090: 1, H0087: 1, H0413: 1, H0561: 1, S0372: 1, H0647: 1, S0144: 1, S0002: 1, H0026: 1, L0761: 1, L0627: 1, L0648: 1, L0766: 1, L0774: 1, L0805: 1, L0656: 1, L0659: 1, L0636: 1, L0383: 1, L0666: 1, L0663: 1, L0665: 1, S0428: 1, H0689: 1, H0670: 1, H0539: 1, S0013: 1, S0174: 1, L0751: 1, L0777: 1, L0752: 1, H0445: 1, L0608: 1, L0595: 1 and H0136: 1.	L0752: 3, L0731: 3, L0747: 2, L0753: 2, H0265: 1, S0116: 1, S0420: 1, H0428: 1, L0769: 1, L0767: 1,

HOVDW60	HOVDW60R	1697	64 - 264	3872	Tyr-22 to Ala-28.	L0766: 1, L0775: 1, L0776: 1, H0555: 1, L0742: 1, L0748: 1, L0757: 1 and L0759: 1.
HOVDZ66	HOVDZ66R	1698	99 - 257	3873	Gly-40 to His-48.	H0428: 1 and S3014: 1. H0428: 2
HOVEA43	HOVEA43R	1699	247 - 396	3874	Ala-20 to Gln-25.	
HOVEB25	HOVEB25R	1700	169 - 363	3875	Ser-7 to Trp-13,	
HOVEE84	HOVEE84R	1701	410 - 589	3876	Phe-19 to Ala-25.	
HOVEE92	HOVEE92R	1702	3 - 143	3877		S0474: 66, L0439: 16, H0547: 15, L0748: 15, L0731: 10, S0360: 9, L0770: 9, S0408: 8, S0358: 7, L0771: 7, L0775: 7, L0747: 6, L0592: 6, H0428: 5, S0438: 5, L0659: 5, L0664: 5, L0665: 5, L0752: 5, L0757: 5, H0506: 5, S0007: 4, H0549: 4, S0440: 4, L0769: 4, L0768: 4, L0774: 4, L0663: 4, H0519: 4, S0152: 4, L0750: 4, L0779: 4, L0755: 4, L0759: 4, L0591: 4, L0595: 4, S0444: 3, H0510: 3, H0615: 3, H0551: 3,

H0100: 3, L0598: 3, L0638: 3, L0766: 3, S0380: 3, L0594: 3, H0341: 2, S0420: 2, S0442: 2, H0722: 2, L0717: 2, H0550: 2, S0222: 2, H0587: 2, H0574: 2, H0632: 2, H0013: 2, H0575: 2, H0581: 2, H0544: 2, H0012: 2, H0687: 2, H0628: 2, S0036: 2, H0509: 2, L0637: 2, L0764: 2, L0773: 2, L0803: 2, L0375: 2, L0806: 2, L0783: 2, L0666: 2, H0520: 2, H0684: 2, H0659: 2, H0521: 2, L0745: 2, L0756: 2, S0436: 2, L0596: 2, L0593: 2, L0362: 2, S0194: 2, H0543: 2, H0624: 1, H0170: 1, H0171: 1, H0717: 1, H0657: 1, H0671: 1, H0663: 1, H0664: 1, H0459: 1, S0356: 1, S0410: 1, H0637: 1, S0476: 1, H0645: 1, S6026: 1,

S0300: 1, H0369: 1, H0431: 1, H0586: 1, H0497: 1, H0331: 1, L0021: 1, S0049: 1, H0184: 1, L0738: 1, H0545: 1, H0046: 1, H0563: 1, H0123: 1, H0050: 1, L0471: 1, H0620: 1, H0014: 1, S0388: 1, S0051: 1, H0356: 1, H0266: 1, S0003: 1, H0039: 1, H0622: 1, T0006: 1, H0617: 1, S0366: 1, H0090: 1, H0040: 1, H0616: 1, S0038: 1, T0041: 1, H0494: 1, S0014: 1, S0150: 1, L0369: 1, L0640: 1, L0763: 1, L5565: 1, L0761: 1, L0373: 1, L0372: 1, L0646: 1, L0521: 1, L0662: 1, L0804: 1, L0651: 1, L0652: 1, L0776: 1, L0527: 1, L0657: 1, L0526: 1, L0384: 1, L0809: 1, L0545: 1, L0790: 1, L0792: 1, H0144: 1, L0438: 1,

HOVEF34	HOVEF34R	1703	288 - 497	3878	H0593: 1, S0126: 1, H0682: 1, H0660: 1, H0648: 1, S0328: 1, H0539: 1, S0378: 1, S0350: 1, H0696: 1, S0028: 1, S0206: 1, L0740: 1, L0777: 1, L0758: 1, S0434: 1, H0217: 1, S0192: 1, S0412: 1 and S0456: 1.
HOVEF81	HOVEF81R	1704	1 - 393	3879	Gln-4 to Gln-10, Lys-35 to Ala-60, Pro-66 to Ser-79. L0750: 11, L0740: 7, L0747: 5, H0341: 4, L0757: 4, H0641: 3, L0766: 3, L0748: 3, L0754: 3, L0752: 3, L0593: 3, H0171: 2, S0134: 2, S0442: 2, S0010: 2, H0428: 2, H0538: 2, L0770: 2, L0774: 2, L0776: 2, L0517: 2, L0438: 2, H0519: 2, H0684: 2, L0777: 2, L0755: 2, L0731: 2, L0758: 2, S0026: 2, H0170: 1, T0002: 1, S0114: 1, S0116: 1, H0663: 1, S0358: 1, S0360: 1, S0007: 1, S0046: 1,

HOVEG73	HOVEG73R	1705	3 - 290	3880	Ser-9 to Gly-17, Ser-20 to Pro-26, Arg-32 to His-41.	H0411: 1, H0592: 1, H0486: 1, H0013: 1, L0022: 1, H0575: 1, H0581: 1, H0052: 1, H0251: 1, H0012: 1, H0620: 1, H0594: 1, H0398: 1, S0036: 1, H0090: 1, H0038: 1, H0040: 1, H0087: 1, L0475: 1, L0520: 1, L0630: 1, L0521: 1, L0662: 1, L0522: 1, L0803: 1, L0651: 1, L0652: 1, L0655: 1, L0661: 1, L0783: 1, L0809: 1, L0789: 1, L0666: 1, H0689: 1, H0682: 1, H0659: 1, H0670: 1, S0330: 1, H0539: 1, H0436: 1, L0605: 1, L0366: 1, S0276: 1, H0542: 1 and H0423: 1.
HOVEJ15	HOVEJ15R	1706	160 - 468	3881		L0809: 8, L0794: 5, L0439: 5, L0758: 5, H0617: 4, L0438: 4, L0754: 4, L0731: 4,

HOVEL51	HOVEL51R	1707	60 - 209	3882	H0295: 3, L0776: 3, H0619: 2, H0441: 2, H0253: 2, H0545: 2, H0188: 2, H0687: 2, H0428: 2, H0424: 2, H0213: 2, H0031: 2, L0769: 2, L0803: 2, L0792: 2, H0539: 2, L0748: 2, L0745: 2, L0747: 2, L0757: 2, H0717: 1, H0549: 1, S0222: 1, H0333: 1, H0318: 1, S0049: 1, L0738: 1, H0046: 1, H0024: 1, H0090: 1, H0649: 1, S0142: 1, L0763: 1, L0642: 1, L0764: 1, L0771: 1, L0649: 1, L0651: 1, L0632: 1, L0805: 1, L0790: 1, H0144: 1, H0723: 1, H0682: 1, H0696: 1, H0555: 1, S0028: 1, L0742: 1, L0744: 1 and L0752: 1.
HOVEN79	HOVEN79R	1708	146 - 265	3883	
HOVEN86	HOVEN86R	1709	1 - 168	3884	
HOVEP45	HOVEP45R	1710	1 - 102	3885	Ser-13 to Val-21, Thr-45 to Ser-50.

HOVEW80	HOVEW80R	1711	2 - 244	3886		
HOVEY58	HOVEY58R	1712	175 - 405	3887	Lys-5 to Ser-18.	L0803: 7, L0748: 4, L0439: 4, L0804: 3, L0750: 3, L0756: 3, H0024: 2, L0438: 2, L0747: 2, L0779: 2, H0624: 1, H0171: 1, H0661: 1, S0354: 1, H0208: 1, S0300: 1, H0441: 1, H0331: 1, H0013: 1, S0214: 1, H0428: 1, H0040: 1, L0770: 1, L0776: 1, L0809: 1, L0665: 1, H0547: 1, H0658: 1, S0432: 1, L0749: 1, L0777: 1, L0780: 1, L0755: 1 and L0759: 1.
HOVFD79	HOVFD79R	1713	3 - 152	3888	Val-2 to Ser-7.	
HOVJF86	HOVJF86RA	1714	20 - 130	3889		
HOVJH27	HOVJH27RA	1715	2 - 355	3890		
HOVJI53	HOVJI53R	1716	1 - 396	3891		
HOVJJ09	HOVJJ09R	1717	1 - 576	3892	Ser-5 to Gly-10, Glu-18 to Glu-32, Ala-39 to Lys-46, Ser-89 to Arg-96, Pro-141 to Ala-151, Ser-162 to Gln-169.	
HOVJR56	HOVJR56R	1718	1 - 186	3893	Ala-18 to Ser-24, Gly-55 to Thr-60.	

HOVJU75	HOVJU75R	1719	49 - 684	3894	Tyr-44 to Asp-49, Pro-132 to Leu-139, Cys-168 to His-174.	
HOVJW17	HOVJW17R	1720	74 - 301	3895	Ala-8 to Gln-14, Arg-40 to Glu-45.	
HOVJY68	HOVJY68R	1721	199 - 570	3896	Pro-47 to Lys-53, Leu-93 to Lys-102, Tyr-105 to Gln-110, Arg-115 to Lys-124.	
HOVKB02	HOVKB02R	1722	1 - 366	3897	Ala-1 to His-13, Leu-73 to Leu-79.	L0157: 2, H0620: 2, L0666: 2, S0001: 1, L0717: 1, H0549: 1, S0222: 1, H0581: 1, H0194: 1, H0015: 1, H0399: 1, H0271: 1, H0688: 1, H0428: 1, H0124: 1, L0637: 1, H0672: 1, L0439: 1, L0750: 1 and H0423: 1.
HOVKE66	HOVKE66R	1723	2 - 487	3898	Ala-20 to Val-38, Cys-43 to Thr-60, Arg-91 to Lys-97.	
HOVKF20	HOVKF20R	1724	1 - 168	3899	Gln-15 to Leu-20, Pro-37 to Thr-44.	
HOVKG18	HOVKG18R	1725	2 - 406	3900	Cys-23 to His-29, Ser-74 to Glu-91.	
HPAMB11	HPAMB11R	1726	323 - 511	3901	Gln-8 to Tyr-14, Pro-20 to Thr-26.	
HPAMB60	HPAMB60R	1727	2 - 586	3902		

| HPAMB62 | HPAMB62R | 1728 | 2 - 196 | 3903 | Leu-12 to Ser-21. | L0439: 11, L0747: 8, H0624: 6, L0759: 6, L0779: 5, L0758: 5, H0013: 4, L0803: 4, L0754: 4, H0171: 3, L0666: 3, L0756: 3, L0752: 3, L0755: 3, L0591: 3, L0608: 3, H0170: 2, H0650: 2, H0341: 2, H0663: 2, S0360: 2, S0003: 2, L0769: 2, L0796: 2, L0766: 2, L0649: 2, L0806: 2, H0696: 2, S0028: 2, L0740: 2, L0750: 2, L0777: 2, S0436: 2, L0361: 2, S0298: 1, S0418: 1, S0444: 1, S0408: 1, H0733: 1, H0734: 1, S0300: 1, S0220: 1, H0497: 1, H0333: 1, H0270: 1, H0575: 1, H0036: 1, H0590: 1, H0596: 1, H0050: 1, L0471: 1, H0015: 1, S0388: 1, S6028: 1, H0266: 1, H0328: 1, H0622: 1, H0708: 1, H0591: 1, H0040: 1, |

HPAMB93	HPAMB93R	1729	2 - 439	3904		
HPAMC04	HPAMC04R	1730	134 - 334	3905		
HPAMC19	HPAMC19R	1731	8 - 631	3906		
HPAMC27	HPAMC27R	1732	1 - 669	3907		
HPAMC90	HPAMC90R	1733	18 - 464	3908	Arg-1 to Gly-6,	S0360: 15, S0358: 14,

H0087: 1, H0412: 1,
H0059: 1, S0112: 1,
H0625: 1, S0440: 1,
S0150: 1, S0422: 1,
L0598: 1, H0529: 1,
L0770: 1, L0761: 1,
L0646: 1, L0764: 1,
L0662: 1, L0768: 1,
L0794: 1, L0650: 1,
L0774: 1, L0775: 1,
L0375: 1, L0659: 1,
L0809: 1, L0530: 1,
L0664: 1, L0665: 1,
S0053: 1, L0438: 1,
H0547: 1, H0519: 1,
H0682: 1, H0659: 1,
H0658: 1, H0660: 1,
H0539: 1, S0152: 1,
S0044: 1, L0749: 1,
L0757: 1, H0445: 1,
S0394: 1, L0596: 1,
L0594: 1, S0026: 1,
S0276: 1, H0543: 1,
H0423: 1, S0412: 1 and
H0293: 1.

Pro-13 to Thr-20.	L0794: 12, L0747: 12, H0696: 11, H0341: 10, H0670: 10, H0657: 9, S0422: 9, H0659: 8, S0114: 7, H0656: 7, S0408: 7, S0007: 7, H0486: 7, H0543: 7, S0444: 6, L0471: 6, S0126: 6, H0658: 6, S0378: 6, S0406: 6, S0027: 6, H0038: 5, H0040: 5, L0770: 5, L0517: 5, H0648: 5, S0404: 5, L0752: 5, H0423: 5, H0624: 4, H0171: 4, H0716: 4, S0116: 4, S0410: 4, H0545: 4, H0373: 4, H0674: 4, L0520: 4, L0763: 4, L0662: 4, L0775: 4, L0493: 4, L0518: 4, L0809: 4, L0519: 4, S3012: 4, H0445: 4, L0361: 4, H0685: 3, T0049: 3, S0420: 3, H0580: 3, S0132:.3, T0109: 3, H0013: 3, S0346: 3, H0597: 3, H0615: 3, H0616: 3, H0087: 3,

H0494: 3, S0440: 3,
L0769: 3, L0761: 3,
L0764: 3, L0521: 3,
L0803: 3, L0776: 3,
L0537: 3, H0144: 3,
H0682: 3, S0380: 3,
S0028: 3, L0748: 3,
L0731: 3, H0422: 3,
H0394: 2, T0002: 2,
H0159: 2, S0342: 2,
H0717: 2, S0134: 2,
H0484: 2, H0661: 2,
H0638: 2, S0442: 2,
H0637: 2, H0619: 2,
H0351: 2, H0362: 2,
S0280: 2, T0048: 2,
H0009: 2, H0012: 2,
H0014: 2, H0688: 2,
H0617: 2, H0413: 2,
L0065: 2, S0438: 2,
S0210: 2, L0767: 2,
L0522: 2, L0806: 2,
L0653: 2, L0526: 2,
L0546: 2, L0530: 2,
L0532: 2, L0666: 2,
L0665: 2, H0547: 2,
H0689: 2, H0672: 2,
H0651: 2, S0328: 2,
S0330: 2, H0710: 2,
S0152: 2, H0521: 2,

S0390: 2, S0032: 2, L0742: 2, L0750: 2, L0588: 2, L0603: 2, S0026: 2, H0170: 1, H0395: 1, H0713: 1, S0402: 1, S6024: 1, H0295: 1, H0294: 1, S0218: 1, S0110: 1, H0402: 1, H0305: 1, S0418: 1, H0722: 1, H0728: 1, S0046: 1, S0476: 1, S0300: 1, H0462: 1, S0222: 1, H0385: 1, H0370: 1, H0404: 1, H0592: 1, H0497: 1, H0333: 1, L0623: 1, L0586: 1, T0060: 1, H0098: 1, H0318: 1, L0563: 1, H0581: 1, H0421: 1, H0251: 1, H0309: 1, H0596: 1, H0231: 1, H0150: 1, H0123: 1, H0620: 1, L0163: 1, S0051: 1, H0399: 1, H0354: 1, H0266: 1, S0334: 1, S0312: 1, S0214: 1, H0428: 1, L0483: 1, T0006: 1, H0553: 1, H0606: 1,

H0212: 1, H0124: 1,
H0090: 1, H0059: 1,
T0004: 1, T0041: 1,
H0560: 1, H0625: 1,
H0561: 1, H0366: 1,
H0509: 1, H0633: 1,
S0472: 1, H0647: 1,
H0646: 1, H0649: 1,
S0142: 1, H0529: 1,
L0451: 1, L0625: 1,
L0640: 1, L0501: 1,
L3904: 1, L0771: 1,
L0560: 1, L5569: 1,
L5574: 1, L5564: 1,
L0499: 1, L0651: 1,
L0555: 1, L0514: 1,
L0783: 1, L0529: 1,
L0791: 1, L0664: 1,
S0374: 1, H0691: 1,
H0684: 1, H0435: 1,
H0660: 1, H0666: 1,
H0539: 1, H0524: 1,
H0704: 1, S0044: 1,
S0146: 1, H0134: 1,
H0436: 1, S0392: 1,
S3014: 1, L0753: 1,
L0755: 1, L0759: 1,
S0031: 1, S0260: 1,
H0444: 1, H0595: 1,
L0599: 1, L0608: 1,

HPAMD56	HPAMD56R	1734	1 - 504	3909	Glu-10 to Phe-17, Phe-25 to Leu-32, Thr-38 to Tyr-44, Gln-81 to Thr-88.	H0653: 1, S0242: 1, S0194: 1, S0196: 1, H0542: 1, H0506: 1 and H0352: 1.
HPAME35	HPAME35R	1735	2 - 277	3910	Gly-60 to Phe-66.	L0731: 9, L0653: 8, L0757: 6, L0809: 5, L0747: 5, S0418: 4, S0360: 4, H0188: 4, S0404: 4, L0779: 4, S0040: 3, H0370: 3, H0040: 3, L0774: 3, S0434: 3, S0442: 2, H0575: 2, H0252: 2, S0440: 2, L0374: 2, L0773: 2, H0435: 2, S0406: 2, L0748: 2, L0740: 2, L0754: 2, L0746: 2, L0758: 2, L0581: 2, H0624: 1, H0686: 1, S0180: 1, H0661: 1, S0358: 1, S0476: 1, L0717: 1, H0549: 1, H0455: 1, H0586: 1, H0632: 1, S0280: 1, H0599: 1, H0118: 1, H0235: 1,

| HPAME58 | HPAME58R | 1736 | 184 - 492 | 3911 | Lys-1 to Leu-12. | H0597: 1, H0545: 1, T0003: 1, H0510: 1, S0314: 1, H0039: 1, L0194: 1, T0086: 1, H0606: 1, H0032: 1, H0674: 1, H0708: 1, H0598: 1, H0634: 1, H0379: 1, H0413: 1, H0100: 1, S0464: 1, H0509: 1, S0344: 1, L0763: 1, L4497: 1, L0639: 1, L0764: 1, L0771: 1, L0364: 1, L0775: 1, L0806: 1, L0655: 1, L0807: 1, L0657: 1, L0788: 1, L0664: 1, L0665: 1, S0374: 1, H0693: 1, S0126: 1, H0689: 1, H0690: 1, H0682: 1, H0670: 1, H0660: 1, H0672: 1, S0330: 1, S0152: 1, S0390: 1, L0744: 1, L0750: 1, L0780: 1, L0753: 1, H0665: 1, H0667: 1 and S0196: 1. |
| HPAMF16 | HPAMF16R | 1737 | 19 - 513 | 3912 | Glu-1 to Gly-8. | H0663: 1, L0438: 1 and H0682: 1. |

| HPAMF38 | HPAMF38R | 1738 | 24 - 449 | 3913 | Ser-35 to Gly-41, Ser-71 to Met-80. | L0752: 12, L0748: 8, L0766: 5, L0599: 5, H0617: 4, L0764: 4, H0081: 3, L0774: 3, L0806: 3, L0776: 3, L0749: 3, L0750: 3, S0444: 2, S0408: 2, H0392: 2, H0150: 2, H0494: 2, H0521: 2, L0756: 2, L0758: 2, H0506: 2, H0352: 2, H0265: 1, H0483: 1, S0358: 1, L0021: 1, H0108: 1, H0024: 1, H0083: 1, S0366: 1, H0090: 1, H0038: 1, H0040: 1, T0041: 1, L0763: 1, L0770: 1, L3905: 1, L0772: 1, L0644: 1, L0645: 1, L0771: 1, L0775: 1, L0651: 1, L0378: 1, L0659: 1, L0666: 1, L0665: 1, L0438: 1, H0519: 1, H0682: 1, H0670: 1, S0188: 1, L0740: 1, L0747: 1, L0777: 1, L0759: 1, H0445: 1, L0596: 1, L0604: 1 and H0542: 1. |

HPAMG44	HPAMG44R	1739	385 - 666	3914	
HPAMG54	HPAMG54R	1740	3 - 410	3915	
HPAMI11	HPAMI11R	1741	2 - 670	3916	Lys-13 to Tyr-30, Arg-52 to Lys-57, Ser-72 to Thr-79, Thr-110 to Trp-115, Leu-124 to Ala-130, Leu-132 to Glu-138, Asn-141 to Lys-162.
HPAMJ71	HPAMJ71R	1742	2 - 472	3917	
HPAMQ47	HPAMQ47R	1743	100 - 246	3918	L0777: 5, L0766: 3, L0803: 3, L0439: 3, S0360: 2, L0598: 2, L0666: 2, L0748: 2, T0049: 1, S0134: 1, S0116: 1, L0717: 1, H0586: 1, H0486: 1, H0575: 1, H0510: 1, H0553: 1, H0560: 1, S0422: 1, L0763: 1, L0769: 1, L0521: 1, L0767: 1, L0768: 1, L0775: 1, L0663: 1, S0374: 1, L0438: 1, H0520: 1, H0682: 1, S0328: 1, L0740: 1, L0757: 1, S0192: 1 and H0543: 1.
HPAMQ76	HPAMQ76R	1744	2 - 190	3919	Pro-18 to Lys-24.
HPAMT47	HPAMT47R	1745	327 - 509	3920	Thr-27 to Lys-37. S0358: 8, L0777: 6,

L0744: 4, H0656: 3,
L0766: 3, H0659: 3,
H0436: 3, L0754: 3,
L0747: 3, L0731: 3,
S0026: 3, H0254: 2,
S0007: 2, H0587: 2,
L0586: 2, H0545: 2,
H0150: 2, L0794: 2,
H0144: 2, L0750: 2,
L0608: 2, S0412: 2,
H0170: 1, H0638: 1,
S0420: 1, S0442: 1,
S0444: 1, H0329: 1,
S0045: 1, H0645: 1,
H0586: 1, H0333: 1,
H0574: 1, H0013: 1,
H0250: 1, L0105: 1,
H0581: 1, H0196: 1,
H0263: 1, H0546: 1,
H0457: 1, L0157: 1,
L0471: 1, S0051: 1,
S0336: 1, S0214: 1,
H0428: 1, H0032: 1,
H0166: 1, H0673: 1,
H0561: 1, S0440: 1,
L0763: 1, L0764: 1,
L0803: 1, L0804: 1,
L0776: 1, T0068: 1,
H0547: 1, H0519: 1,
H0593: 1, H0690: 1,

HPAMU33	HPAMU33R	1746	2 - 520	3921	Lys-59 to Tyr-70, Pro-109 to Lys-115.	H0682: 1, H0435: 1, H0670: 1, H0666: 1, H0672: 1, S0328: 1, H0696: 1, L0751: 1, L0749: 1, L0756: 1, L0780: 1, L0757: 1, L0759: 1, H0543: 1, H0423: 1 and H0422: 1.
HPAMV82	HPAMV82R	1747	207 - 422	3922	Gln-34 to Asn-39.	
HPAMW44	HPAMW44R	1748	1 - 357	3923	Gly-1 to Arg-13, Glu-37 to Lys-42, Gly-45 to Gln-64.	L0742: 11, L0747: 10, L0769: 9, L0766: 9, L0754: 8, L0751: 7, L0777: 7, L0752: 7, L0806: 6, L0776: 6, L0743: 6, L0717: 4, L0665: 4, L0750: 4, S0360: 3, H0580: 3, H0318: 3, H0052: 3, L0471: 3, H0040: 3, T0042: 3, H0547: 3, H0682: 3, L0745: 3, L0779: 3, L0759: 3, L0593: 3, L0601: 3, H0624: 2, H0556: 2, S0045: 2, H0559: 2, H0013: 2, H0530: 2, H0046: 2, H0620: 2, S0051: 2, T0010: 2,

H0083: 2, S0002: 2, L0770: 2, L0659: 2, H0520: 2, S0292: 2, L0744: 2, L0740: 2, L0758: 2, L0596: 2, T0049: 1, L0393: 1, S0001: 1, H0663: 1, H0306: 1, H0638: 1, S0420: 1, S0358: 1, S0132: 1, H0619: 1, H0645: 1, H0550: 1, S0222: 1, H0392: 1, H0438: 1, H0257: 1, T0039: 1, T0040: 1, S0280: 1, H0156: 1, H0575: 1, H0618: 1, H0253: 1, S0010: 1, H0581: 1, H0194: 1, H0204: 1, H0150: 1, H0123: 1, H0292: 1, L0194: 1, T0023: 1, H0031: 1, H0553: 1, H0617: 1, H0673: 1, H0169: 1, H0674: 1, H0090: 1, H0269: 1, H0623: 1, H0494: 1, L0475: 1, S0150: 1, H0538: 1, L0763: 1, L0638: 1, L0761: 1, L0646: 1, L0645: 1,

HPAMY45	HPAMY45R	1749	291 - 569	3924		L0771: 1, L0803: 1, L0774: 1, L0775: 1, L0651: 1, L0657: 1, L0658: 1, L0545: 1, L0792: 1, L0663: 1, L0664: 1, H0144: 1, H0593: 1, S0126: 1, H0435: 1, S0330: 1, H0521: 1, H0522: 1, S0044: 1, S0406: 1, S0027: 1, L0741: 1, L0439: 1, L0755: 1, L0757: 1, S0436: 1, L0485: 1, L0603: 1, S0011: 1, H0668: 1, H0542: 1 and H0422: 1.
HPAMZ14	HPAMZ14R	1750	2 - 628	3925	Pro-1 to Cys-6, Ala-13 to Ala-19, His-22 to Lys-28, Ser-44 to Cys-53, Pro-56 to Gly-67.	
HPAMZ15	HPAMZ15R	1751	3 - 149	3926	Trp-19 to Ser-27, Pro-185 to Ser-195.	L0493: 91, L0515: 29, L0509: 25, L0514: 21, L0803: 12, L0508: 8, L0604: 7, H0599: 6, L0809: 5, H0445: 5, L0800: 4, L0511: 4, L0362: 4, H0543: 4,

H0657: 3, L0598: 3,
L0498: 3, L0805: 3,
L0780: 3, L0755: 3,
L0731: 3, L0759: 3,
L0591: 3, S0026: 3,
H0170: 2, H0373: 2,
H0038: 2, H0623: 2,
H0494: 2, H0560: 2,
H0561: 2, L0503: 2,
L0651: 2, L0653: 2,
L0776: 2, L0792: 2,
H0520: 2, H0555: 2,
S0206: 2, L0748: 2,
L0749: 2, L0756: 2,
L0779: 2, L0590: 2,
L0608: 2, H0668: 2,
H0422: 2, S0040: 1,
S0114: 1, S0134: 1,
S0218: 1, H0656: 1,
S0212: 1, S0360: 1,
H0489: 1, H0580: 1,
S0045: 1, S0476: 1,
H0431: 1, H0643: 1,
L0623: 1, H0486: 1,
H0069: 1, H0002: 1,
H0097: 1, H0274: 1,
S0474: 1, H0421: 1,
L0040: 1, H0024: 1,
S0003: 1, H0622: 1,
H0553: 1, H0032: 1,

| HPAMZ81 | HPAMZ81R | 1752 | 3 - 677 | 3927 | Ser-1 to Lys-25, Glu-71 to Ser-77, Glu-93 to Thr-99, | H0388: 1, H0400: 1, S0036: 1, H0090: 1, H0551: 1, H0264: 1, H0412: 1, S0386: 1, T0042: 1, H0625: 1, S0210: 1, H0529: 1, L0625: 1, L0505: 1, L0506: 1, L0500: 1, L0761: 1, L0646: 1, L0662: 1, L0794: 1, L0375: 1, L0784: 1, L0655: 1, L0510: 1, L0634: 1, L0517: 1, L0519: 1, L0793: 1, L0666: 1, L0664: 1, S0374: 1, H0547: 1, H0519: 1, H0682: 1, H0658: 1, H0648: 1, H0672: 1, H0539: 1, H0521: 1, H0696: 1, S0146: 1, S0390: 1, L0747: 1, L0753: 1, S0260: 1, H0444: 1, S0434: 1, L0584: 1, S0242: 1, S0194: 1, S0276: 1, H0542: 1 and S0424: 1. |

HPANA05	HPANA05R	1753	2 - 514	3928	Arg-123 to His-134, Pro-141 to His-146, His-198 to Ala-207. Thr-23 to Gln-35, His-37 to Val-51, Arg-70 to Arg-81, Gln-108 to Asp-114, Met-130 to Ser-140.	
HPANA07	HPANA07R	1754	1 - 720	3929	Ala-1 to Thr-6, Lys-19 to Leu-24, Ile-77 to Ala-93, Val-105 to Leu-110, Thr-139 to Thr-153, Thr-165 to Lys-187, Ala-198 to Leu-203, Ser-211 to Lys-226.	H0497: 5, S0002: 5, H0529: 5, H0556: 4, H0046: 3, L0455: 3, T0042: 3, H0520: 3, H0543: 3, H0265: 2, H0657: 2, H0656: 2, H0458: 2, S0358: 2, H0486: 2, H0050: 2, H0124: 2, H0591: 2, H0494: 2, L0662: 2, H0522: 2, L0740: 2, L0751: 2, L0747: 2, L0588: 2, L0605: 2, H0667: 2, H0686: 1, H0650: 1, H0664: 1, H0125: 1, S0418: 1, H0580: 1, S6014: 1, H0257: 1, H0559: 1, H0635: 1, H0427: 1, H0575: 1, H0052: 1, N0006: 1, L0471: 1, H0373: 1, H0083: 1,

HPANA28	HPANA28R	1755	2 - 376	3930	Gln-22 to Thr-31, Leu-91 to Leu-104.	H0266: 1, S0250: 1, S0022: 1, H0428: 1, H0031: 1, H0383: 1, H0212: 1, S0366: 1, S0036: 1, H0040: 1, H0634: 1, H0561: 1, S0210: 1, L0770: 1, L0761: 1, L0772: 1, L0641: 1, L0644: 1, L0764: 1, L0776: 1, L0655: 1, L0807: 1, L0657: 1, L0665: 1, S0148: 1, S0126: 1, H0682: 1, H0694: 1, S0037: 1, L0744: 1, L0750: 1, L0755: 1, L0731: 1, S0436: 1, L0596: 1, L0485: 1, L0601: 1, S0276: 1, H0423: 1, S0424: 1 and S0446: 1.
HPANA87	HPANA87R	1756	494 - 730	3931	Gln-13 to Gly-28.	
HPANB32	HPANB32R	1757	2 - 247	3932		
HPANC01	HPANC01R	1758	255 - 446	3933	Leu-1 to Ser-8.	
HPANE49	HPANE49R	1759	2 - 412	3934		
HPANE52	HPANE52R	1760	1 - 666	3935	Lys-64 to Tyr-75, Pro-114 to Lys-120, Leu-160 to Lys-169,	

HPANE87	HPANE87R	1761	119 - 652	3936	Tyr-172 to Gln-177, Pro-182 to Val-189.	
						L0752: 10, L0593: 9, L0775: 8, L0588: 8, L0666: 7, L0665: 7, L0592: 7, L0595: 7, L0363: 6, L0774: 6, L0747: 6, L0362: 6, H0422: 6, L0455: 5, L0659: 5, H0539: 5, H0170: 4, S0360: 4, L0657: 4, H0547: 4, L0749: 4, L0779: 4, L0757: 4, H0657: 3, H0412: 3, L0520: 3, L0761: 3, L0646: 3, L0375: 3, L0651: 3, L0783: 3, H0144: 3, H0520: 3, H0659: 3, H0670: 3, H0648: 3, L0740: 3, L0750: 3, L0756: 3, L0731: 3, L0759: 3, L0591: 3, L0608: 3, H0662: 2, S0376: 2, H0637: 2, H0619: 2, L0717: 2, S0280: 2, H0318: 2, T0010: 2, H0040: 2, H0413: 2, L0351: 2, H0646: 2, L0763: 2,

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L0521: 2, L0784: 2,
L0655: 2, L0382: 2,
L0809: 2, L0664: 2,
H0682: 2, H0658: 2,
H0672: 2, L0439: 2,
L0755: 2, L0589: 2,
L0604: 2, S0424: 2,
H0624: 1, H0686: 1,
H0685: 1, S0040: 1,
H0716: 1, H0341: 1,
H0580: 1, S0468: 1,
S6026: 1, H0351: 1,
H0392: 1, L0623: 1,
T0060: 1, H0069: 1,
H0427: 1, T0048: 1,
T0071: 1, S0049: 1,
H0052: 1, L0471: 1,
S0388: 1, S0051: 1,
S0003: 1, T0006: 1,
L0055: 1, H0169: 1,
S0036: 1, T0067: 1,
H0059: 1, H0494: 1,
H0560: 1, S0372: 1,
S0002: 1, L0371: 1,
L0637: 1, L0627: 1,
L0772: 1, L0764: 1,
L0662: 1, L0767: 1,
L0768: 1, L0649: 1,
L4500: 1, L0650: 1,
L0378: 1, L0806: 1,

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HPANJ67	HPANJ67R	1762	3 - 119	3937		L0633: 1, L0628: 1, L0517: 1, L0518: 1, L0789: 1, L0663: 1, L0352: 1, H0684: 1, H0435: 1, H0666: 1, S0330: 1, S0378: 1, S0380: 1, S0152: 1, H0134: 1, S0406: 1, H0436: 1, L0612: 1, L0742: 1, L0748: 1, L0751: 1, S0031: 1, L0596: 1, L0485: 1, L0599: 1, L0601: 1, S0026: 1, H0542: 1, H0543: 1 and H0423: 1.
HPANK61	HPANK61R	1763	170 - 310	3938	Ser-5 to Ser-14, Gln-21 to Gln-28.	H0328: 2, H0674: 2, L0774: 2, L0805: 2, H0682: 2, L0731: 2, H0306: 1, L0770: 1, L0764: 1, L0809: 1, H0520: 1, H0660: 1, H0521: 1, L0744: 1, L0751: 1, L0750: 1, L0752: 1, S0026: 1, H0352: 1 and L0360: 1.
HPCOB29	HPCOB29R	1764	2 - 139	3939		
HPCOB69	HPCOB69R	1765	47 - 118	3940		
HPCOJ59	HPCOJ59R	1766	3 - 308	3941	Pro-1 to Val-6,	H0659: 2

HPCOK72	HPCOK72R	1767	197 - 346	3942		
HPCOK73	HPCOK73R	1768	426 - 557	3943	Asp-51 to Phe-56, Asp-83 to Gly-88, Ser-94 to Glu-102.	Ile-12 to Cys-18.

H0591: 62, S0242: 15, L0754: 11, S0003: 9, S0196: 8, L0766: 7, H0144: 6, L0740: 6, L0664: 5, S0420: 4, H0393: 4, L0803: 4, H0428: 3, H0509: 3, H0641: 3, L0777: 3, L0595: 3, L0362: 3, S0360: 2, H0013: 2, L0471: 2, L0163: 2, H0355: 2, H0553: 2, S0036: 2, L0662: 2, L0804: 2, S0374: 2, L0438: 2, S0126: 2, L0748: 2, L0755: 2, L0485: 2, S0412: 2, H0341: 1, S0376: 1, H0580: 1, S0045: 1, H0331: 1, T0039: 1, T0060: 1, H0427: 1, L0021: 1, H0590: 1, H0318: 1, H0194: 1, H0563: 1, H0572: 1, H0051: 1, H0083: 1, S6028: 1, S0312: 1,

HPCOK93	HPCOK93R	1769	1 - 108	3944	S0214: 1, H0031: 1, H0628: 1, H0598: 1, H0038: 1, H0634: 1, H0616: 1, H0551: 1, H0412: 1, L0370: 1, H0494: 1, H0625: 1, S0440: 1, S0344: 1, H0529: 1, L0770: 1, L0646: 1, L0645: 1, L0648: 1, L0521: 1, L0775: 1, L0525: 1, L0805: 1, L0657: 1, L0782: 1, L0663: 1, L0665: 1, H0547: 1, H0519: 1, H0711: 1, H0659: 1, H0660: 1, H0518: 1, S0152: 1, H0521: 1, L0745: 1, L0759: 1, S0434: 1, L0590: 1, L0592: 1, L0594: 1, H0667: 1, H0423: 1, H0422: 1, S0424: 1 and H0506: 1.
HPCOL81	HPCOL81R	1770	33 - 179	3945	Lys-42 to Val-49.
HPCOO90	HPCOO90R	1771	3 - 335	3946	Ala-3 to Gly-9.
HPCOO95	HPCOO95R	1772	343 - 2	3947	Tyr-12 to Ile-17, Pro-28 to Asn-33, Arg-45 to Asp-53.
HPCOP23	HPCOP23R	1773	2 - 427	3948	

HPCOQ33	HPCOQ33R	1774	417 - 548	3949	
HPCOQ85	HPCOQ85R	1775	2 - 259	3950	L0803: 8, L0777: 8, L0794: 7, L0766: 7, H0144: 5, L0438: 5, H0547: 5, L0439: 5, H0013: 4, L0779: 4, H0441: 3, S0440: 3, L0762: 3, L0771: 3, L0662: 3, L0666: 3, L0665: 3, L0748: 3, L0752: 3, H0656: 2, H0341: 2, S0418: 2, S0356: 2, H0575: 2, H0328: 2, H0615: 2, H0040: 2, H0477: 2, T0041: 2, L0598: 2, L0763: 2, L0659: 2, L0663: 2, L0664: 2, H0659: 2, L0602: 2, S0406: 2, L0755: 2, L0759: 2, L0592: 2, H0624: 1, H0170: 1, H0171: 1, S0134: 1, H0583: 1, H0650: 1, H0657: 1, L0415: 1, S0116: 1, H0661: 1, H0664: 1, S0420: 1, L0005: 1, S0444: 1, S0360: 1, S0408: 1, S0046: 1, S0476: 1,

				S0300: 1, L0717: 1, H0411: 1, H0486: 1, T0039: 1, H0318: 1, H0581: 1, H0123: 1, H0014: 1, H0354: 1, H0179: 1, S0003: 1, H0628: 1, H0032: 1, S0036: 1, L0060: 1, H0264: 1, H0412: 1, L0564: 1, H0625: 1, H0131: 1, H0646: 1, S0002: 1, L0770: 1, L0637: 1, L0761: 1, L0800: 1, L0764: 1, L0649: 1, L0804: 1, L0650: 1, L0519: 1, L0352: 1, H0519: 1, S0126: 1, H0658: 1, H0648: 1, H0672: 1, S0328: 1, S0330: 1, H0518: 1, H0696: 1, H0704: 1, S0027: 1, L0743: 1, L0754: 1, L0747: 1, L0758: 1, S0434: 1, L0591: 1, S0011: 1, H0543: 1, H0422: 1, H0506: 1 and H0721: 1.
HPCOQ92	HPCOQ92R	1776	483 - 641	3951
HPCOR41	HPCOR41R	1777	133 - 396	3952	Ala-44 to Gly-50.

HPCOR52	HPCOR52R	1778	43 - 432	3953	
HPCOU70	HPCOU70R	1779	137 - 355	3954	S0414: 16, S0360: 6, S0358: 5, L0766: 5, H0574: 4, H0521: 4, L0754: 4, L0756: 4, S0422: 3, L0770: 3, H0547: 3, H0672: 3, L0596: 3, H0251: 2, H0615: 2, H0090: 2, L0646: 2, L0662: 2, L0776: 2, L0659: 2, L0752: 2, L0758: 2, S0436: 2, L0595: 2, H0624: 1, L0002: 1, H0583: 1, H0650: 1, S0116: 1, S0298: 1, S0282: 1, S0418: 1, H0722: 1, H0734: 1, S0045: 1, S0300: 1, L0717: 1, S0222: 1, H0013: 1, L0021: 1, H0706: 1, L0105: 1, H0263: 1, L0041: 1, H0057: 1, S0050: 1, L0163: 1, H0051: 1, S0388: 1, S0051: 1, H0271: 1, S0003: 1, H0644: 1, H0032: 1, H0673: 1, H0379: 1, H0272: 1, H0059: 1,

HPCOV35	HPCOV35R	1780	151 - 657	3955		H0130: 1, H0647: 1, S0210: 1, S0426: 1, H0529: 1, L0637: 1, L0372: 1, L0649: 1, L0775: 1, L0651: 1, L0806: 1, L0657: 1, L0518: 1, L0788: 1, L0666: 1, L0663: 1, L0665: 1, H0144: 1, L0438: 1, H0519: 1, H0689: 1, H0690: 1, H0659: 1, S0380: 1, H0696: 1, S0406: 1, H0436: 1, H0478: 1, H0727: 1, L0439: 1, L0731: 1, H0595: 1, S0434: 1, L0608: 1, H0667: 1, S0196: 1, H0422: 1, S0424: 1 and H0506: 1.
HPCOV41	HPCOV41R	1781	3 - 356	3956	Lys-4 to Lys-16.	
HPCOX43	HPCOX43R	1782	158 - 418	3957	Asn-9 to Trp-14, Pro-20 to Arg-46.	
HPCPB38	HPCPB38R	1783	294 - 473	3958		L0439: 3, L0438: 1, H0659: 1, H0648: 1 and S0330: 1.
HPCPD26	HPCPD26R	1784	3 - 314	3959		
HPCPE33	HPCPE33R	1785	308 - 427	3960		H0551: 11, L0766: 10, L0794: 8, S0026: 7,

H0556: 6, L0770: 6, H0659: 6, H0521: 6, L0740: 5, H0661: 4, H0638: 4, H0497: 4, H0560: 4, H0170: 3, H0341: 3, S0360: 3, H0318: 3, H0561: 3, L0731: 3, L0757: 3, H0265: 2, S0418: 2, S0420: 2, S0356: 2, S0132: 2, S0278: 2, T0115: 2, T0110: 2, H0083: 2, S0214: 2, H0622: 2, H0617: 2, S0364: 2, H0090: 2, T0042: 2, H0366: 2, H0646: 2, S0002: 2, H0529: 2, L0369: 2, L0769: 2, L0646: 2, L0776: 2, L0655: 2, L0809: 2, L0789: 2, L0666: 2, L0664: 2, L0777: 2, L0758: 2, L0593: 2, H0668: 2, H0543: 2, H0423: 2, T0002: 1, S0342: 1, H0716: 1, H0657: 1, S0212: 1, H0402: 1, L0005: 1, S0376: 1, H0580: 1, H0339: 1,

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HPCPH50	HPCPH50R	1786	93 - 209	3961		S0194: 1, H0542: 1, H0422: 1 and H0506: 1.
HPCPH51	HPCPH51R	1787	203 - 412	3962	Pro-10 to Val-15, Ser-25 to Asn-32.	H0659: 2, L0752: 2, L0595: 2 and H0686: 1.
HPCPH52	HPCPH52R	1788	3 - 101	3963		
HPCPH68	HPCPH68R	1789	191 - 322	3964		
HPCPU27	HPCPU27R	1790	3 - 116	3965	Pro-29 to Gln-38.	
HPCPW09	HPCPW09R	1791	201 - 407	3966	Gln-47 to Lys-55.	L0766: 10, L0754: 9, S0358: 6, H0616: 6, H0551: 5, L0439: 5, H0657: 4, H0497: 4, S0003: 4, H0038: 4, S0422: 4, S0374: 4, H0659: 4, S0045: 3, H0644: 3, H0412: 3, H0529: 3, L0662: 3, L0805: 3, L0657: 3, L0663: 3, H0521: 3, H0624: 2, H0171: 2, S0040: 2, H0638: 2, S0418: 2, L0005: 2, S0376: 2, H0546: 2, H0046: 2, H0553: 2, H0169: 2, H0591: 2, H0413: 2, H0623: 2, L0646: 2, L0771: 2, L0803: 2, L0526: 2, L0666: 2, L0664: 2,

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HPCPX80	HPCPX80R	1792	209 - 298	3967		L0518: 1, L0783: 1, L0809: 1, L0647: 1, H0144: 1, H0520: 1, H0648: 1, S0328: 1, S0152: 1, H0555: 1, S3014: 1, L0747: 1, L0749: 1, S0031: 1, L0684: 1, S0436: 1, L0608: 1, L0595: 1, S0011: 1, S0026: 1, H0136: 1, H0543: 1, H0423: 1 and H0506: 1.
HPCQO79	HPCQO79R	1793	74 - 256	3968	His-25 to Lys-30.	H0659: 2, L0438: 1 and L0439: 1.
HPCQO91	HPCQO91R	1794	270 - 479	3969	Thr-19 to Leu-24.	H0521: 13, L0659: 10, L0779: 10, H0551: 9, S0360: 6, S0214: 6, L0770: 6, L0649: 6, L0666: 6, L0731: 6, H0170: 5, H0638: 5, S0376: 5, H0580: 5, H0575: 5, H0553: 5, S0210: 5, L0662: 5, L0776: 5, L0657: 5, H0547: 5, L0439: 5, H0656: 4, S0358: 4, H0676: 4, H0574: 4, H0486: 4, H0318: 4, S0003: 4, L0655: 4,

L0663: 4, L0665: 4, H0659: 4, L0756: 4, L0757: 4, H0445: 4, H0542: 4, S0212: 3, H0009: 3, L0157: 3, L0471: 3, H0024: 3, H0494: 3, L0763: 3, L0637: 3, L0646: 3, L0764: 3, S0052: 3, H0672: 3, L0748: 3, L0750: 3, L0752: 3, L0755: 3, L0608: 3, S0026: 3, H0543: 3, H0171: 2, H0556: 2, H0657: 2, L0785: 2, S0420: 2, L0005: 2, H0156: 2, S0474: 2, H0581: 2, H0251: 2, H0545: 2, H0373: 2, H0477: 2, H0412: 2, H0413: 2, T0041: 2, S0466: 2, H0641: 2, S0144: 2, L0372: 2, L0774: 2, L0805: 2, L0783: 2, L0664: 2, S0374: 2, L0438: 2, H0658: 2, H0670: 2, H0660: 2, H0539: 2, H0522: 2, H0436: 2, L0742: 2, L0777: 2,

L0758: 2, L0759: 2, L0596: 2, L0599: 2, L0362: 2, S0192: 2, H0265: 1, S0040: 1, H0295: 1, H0583: 1, H0650: 1, S0116: 1, H0663: 1, H0662: 1, H0619: 1, S0278: 1, H0261: 1, S0222: 1, H0431: 1, H0592: 1, H0586: 1, H0485: 1, H0013: 1, H0069: 1, H0427: 1, H0098: 1, H0042: 1, H0004: 1, H0274: 1, L0105: 1, H0505: 1, H0052: 1, H0327: 1, H0544: 1, H0546: 1, H0046: 1, H0150: 1, H0015: 1, T0010: 1, H0510: 1, H0375: 1, H0188: 1, H0252: 1, H0328: 1, H0039: 1, T0006: 1, H0031: 1, L0055: 1, H0032: 1, H0169: 1, H0124: 1, H0598: 1, H0090: 1, H0040: 1, H0059: 1, L0564: 1, H0560: 1, H0625: 1, H0561: 1, H0647: 1,

HPCQQ66	HPCQQ66R	1795	113 - 271	3970		H0646: 1, S0142: 1, S0344: 1, S0002: 1, S0426: 1, H0695: 1, L0369: 1, L0772: 1, L0765: 1, L0771: 1, L0648: 1, L0560: 1, L0386: 1, L0381: 1, L0804: 1, L0775: 1, L0806: 1, L0658: 1, S0428: 1, H0144: 1, H0520: 1, S0126: 1, H0690: 1, H0682: 1, H0435: 1, H0666: 1, S0330: 1, S0380: 1, H0518: 1, S0152: 1, S0350: 1, H0696: 1, S0044: 1, S0037: 1, S0028: 1, L0747: 1, S0031: 1, H0444: 1, L0588: 1, L0594: 1, L0601: 1, S0011: 1, H0667: 1, H0423: 1, H0422: 1 and H0008: 1.
HPCQT27	HPCQT27R	1796	119 - 265	3971		
HPCQT88	HPCQT88R	1797	1 - 345	3972		
HPCQW64	HPCQW64R	1798	2 - 229	3973	Pro-3 to Cys-9, Asn-28 to Phe-37.	
HPCQW77	HPCQW77R	1799	259 - 408	3974		L0758: 6, L0779: 5, L0766: 4, L0731: 4,

HPCQX47	HPCQX47R	1800	174 - 326	3975	Lys-1 to Val-6.	S0360: 2, L0769: 2, L0649: 2, H0648: 2, L0744: 2, L0740: 2, L0747: 2, L0777: 2, L0755: 2, L0757: 2, L0599: 2, H0171: 1, T0049: 1, H0657: 1, H0255: 1, H0638: 1, S0408: 1, H0619: 1, H0037: 1, H0052: 1, L0471: 1, H0014: 1, H0316: 1, S0438: 1, L0520: 1, L0763: 1, L0770: 1, L0637: 1, L0761: 1, L0373: 1, L0764: 1, L0774: 1, L0775: 1, L0375: 1, L0776: 1, L0655: 1, L0527: 1, L0542: 1, L0382: 1, L0519: 1, H0144: 1, H0682: 1, H0659: 1, H0660: 1, H0696: 1, H0555: 1, S3012: 1, L0439: 1, L0751: 1, L0754: 1, L0745: 1, L0749: 1, L0752: 1, L0759: 1, H0542: 1, S0458: 1 and S0384: 1.

HPCRN90	HPCRN90R	1801	2 - 109	3976	
HPCTD21	HPCTD21R	1802	228 - 560	3977	Ser-8 to Lys-21, Gln-47 to Glu-52, Arg-72 to Arg-87.
HPCTD23	HPCTD23R	1803	350 - 760	3978	Met-4 to Lys-18, Gln-44 to Glu-49, Arg-69 to Arg-84.
HPCTD25	HPCTD25R	1804	269 - 598	3979	Asn-1 to Lys-20, Gln-46 to Glu-51, Arg-71 to Arg-86.
HPCTD61	HPCTD61R	1805	354 - 713	3980	Asn-1 to Lys-21, Gln-47 to Glu-52, Arg-72 to Arg-87.
HPCTF29	HPCTF29R	1806	2 - 595	3981	
HPCTF83	HPCTF83R	1807	1 - 177	3982	L0655: 22, H0648: 8, H0638: 4, H0318: 4, L0776: 4, L0659: 4, L0751: 4, L0747: 4, L0599: 4, S0358: 3, L0761: 3, L0775: 3, L0760: 2, H0255: 2, H0663: 2, S0360: 2, H0486: 2, L0142: 2, H0087: 2, L0662: 2, L0378: 2, L0653: 2, L0783: 2, L0666: 2, L0664: 2, L0665: 2, L0743: 2, L0756: 2, L0777: 2, L0362: 2, L0600: 2, H0650: 1,

H0657: 1, H0692: 1,
H0381: 1, H0306: 1,
H0402: 1, H0305: 1,
S0376: 1, S0300: 1,
H0441: 1, L0622: 1,
L0623: 1, L0586: 1,
H0635: 1, L0022: 1,
H0042: 1, H0575: 1,
H0581: 1, H0052: 1,
H0597: 1, H0231: 1,
H0109: 1, H0029: 1,
H0039: 1, T0006: 1,
H0031: 1, H0166: 1,
H0673: 1, H0674: 1,
H0163: 1, H0063: 1,
H0413: 1, H0359: 1,
H0396: 1, H0647: 1,
H0646: 1, S0002: 1,
H0529: 1, L0762: 1,
L0769: 1, L0667: 1,
L0772: 1, L0372: 1,
L0771: 1, L0767: 1,
L0768: 1, L0387: 1,
L0766: 1, L0774: 1,
L0784: 1, L0606: 1,
L0607: 1, L0629: 1,
L0657: 1, L0518: 1,
L0782: 1, L0809: 1,
L0787: 1, L0789: 1,
L0790: 1, L0663: 1,

HPCTI39	HPCTI39R	1808	1 - 114	3983		H0690: 1, H0659: 1, H0672: 1, H0651: 1, S0328: 1, S0378: 1, H0521: 1, H0522: 1, S0044: 1, H0214: 1, H0187: 1, L0748: 1, L0740: 1, L0755: 1, H0445: 1, H0595: 1, S0106: 1, S0462: 1 and H0677: 1.
HPCTI86	HPCTI86R	1809	1 - 306	3984	Lys-37 to Arg-42, Ser-74 to Thr-81.	
HPCTN62	HPCTN62R	1810	341 - 451	3985	Arg-6 to Asp-15.	
HPCTO69	HPCTO69R	1811	23 - 538	3986		
HPCTP60	HPCTP60R	1812	191 - 343	3987		H0052: 3, H0624: 2, H0014: 2, H0375: 2, L0598: 2, L0662: 2, L0803: 2, L0792: 2, L0666: 2, L0664: 2, H0659: 2, L0742: 2, L0743: 2, L0754: 2, H0423: 2, H0171: 1, H0686: 1, S0360: 1, H0486: 1, H0194: 1, L0041: 1, L0471: 1, H0687: 1, H0040: 1, H0264: 1, S0440: 1, S0422: 1, L0761: 1, L0646: 1, L0804: 1,

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HPCTR60	HPCTR60R	1813	307 - 495	3988		L0352: 1, H0670: 1, L0744: 1, L0740: 1, L0780: 1, L0759: 1 and H0506: 1. / L0803: 2, H0413: 1, L0650: 1, L0666: 1, H0689: 1, H0659: 1, H0658: 1, L0758: 1, L0759: 1 and S0242: 1.
HPCTT47	HPCTT47R	1814	3 - 128	3989	Gly-4 to Lys-9.	
HPCTV40	HPCTV40R	1815	3 - 377	3990		
HPCTV53	HPCTV53R	1816	2 - 274	3991	Pro-7 to Ala-13.	
HPCTV92	HPCTV92R	1817	2 - 205	3992		
HPCTX22	HPCTX22R	1818	1 - 153	3993	Asn-27 to Lys-36.	L0439: 11, L0740: 10, L0752: 10, L0659: 8, L0748: 7, L0005: 6, S0358: 6, L0471: 6, S0214: 6, L0803: 6, L0517: 6, L0666: 6, L0759: 6, L0664: 5, L0665: 5, S0126: 5, H0574: 4, H0156: 4, L0646: 4, L0771: 4, L0766: 4, S0374: 4, H0659: 4, L0754: 4, L0749: 4, L0731: 4, L0362: 4, H0170: 3, H0341: 3, H0632: 3, S0003: 3, H0413: 3, H0529: 3, L0369: 3,

L0770: 3, L0637: 3,
L0775: 3, L0663: 3,
S0378: 3, H0478: 3,
S0026: 3, S0212: 2,
S0360: 2, H0580: 2,
S0045: 2, H0431: 2,
H0331: 2, H0427: 2,
H0599: 2, H0039: 2,
H0553: 2, H0551: 2,
S0002: 2, L0772: 2,
L0653: 2, L0654: 2,
L0776: 2, L0655: 2,
L0661: 2, H0547: 2,
H0519: 2, S0028: 2,
L0755: 2, H0543: 2,
H0624: 1, H0171: 1,
T0002: 1, H0657: 1,
H0656: 1, L0415: 1,
S0116: 1, S0418: 1,
S0420: 1, S0354: 1,
L0430: 1, H0208: 1,
H0642: 1, H0013: 1,
L0021: 1, T0082: 1,
S0010: 1, H0318: 1,
H0052: 1, H0544: 1,
H0123: 1, H0620: 1,
H0024: 1, H0014: 1,
H0275: 1, H0355: 1,
H0510: 1, H0266: 1,
H0290: 1, H0615: 1,

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	3994
	381 - 578
	1819
	HPCTY38R
HPCTY38	

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HPDOA92	HPDOA92R	1820	57 - 209	3995	Asp-1 to Leu-6.	L0547: 1, L0518: 1, L0782: 1, L0809: 1, L0367: 1, L0565: 1, L0438: 1, H0520: 1, S0126: 1, H0435: 1, H0670: 1, H0666: 1, H0539: 1, S0406: 1, H0478: 1, S0028: 1, L0744: 1, L0786: 1, L0757: 1, S0260: 1, H0445: 1, L0588: 1, L0608: 1, S0412: 1, S0462: 1 and H0506: 1.
HPDOF32	HPDOF32R	1821	1 - 99	3996		
HPDOF81	HPDOF81R	1822	3 - 287	3997	Gln-20 to Leu-25.	
HPDOP05	HPDOP05R	1823	2 - 412	3998	Asp-11 to Val-19, Cys-36 to Asp-58, Lys-102 to Lys-111, Ile-115 to Ala-125, Val-127 to Gln-132.	L0747: 12, L0750: 12, H0052: 9, H0547: 8, H0659: 8, L0439: 8, L0752: 8, S0360: 7, S0408: 7, S0222: 6, S0010: 6, H0494: 6, H0144: 6, H0657: 5, S0358: 5, H0393: 5, H0373: 5, H0551: 5, L0775: 5, L0666: 5, L0758: 5, H0542: 5, H0486: 4, H0013: 4, H0545: 4, H0046: 4, L0471: 4, H0687: 4,

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H0442: 1, H0438: 1,
H0586: 1, H0574: 1,
L0622: 1, T0040: 1,
H0250: 1, H0156: 1,
L0021: 1, H0002: 1,
T0082: 1, T0048: 1,
H0318: 1, H0310: 1,
H0251: 1, H0263: 1,
H0597: 1, L0738: 1,
H0546: 1, H0569: 1,
H0050: 1, H0024: 1,
H0578: 1, H0014: 1,
H0015: 1, L0163: 1,
H0051: 1, S0388: 1,
H0083: 1, H0399: 1,
S6028: 1, H0398: 1,
S0003: 1, S0214: 1,
H0428: 1, L0483: 1,
H0181: 1, H0606: 1,
H0166: 1, H0169: 1,
H0708: 1, H0163: 1,
T0067: 1, H0264: 1,
H0488: 1, H0413: 1,
L0564: 1, H0022: 1,
T0041: 1, H0512: 1,
L0475: 1, H0561: 1,
S0294: 1, L0065: 1,
H0641: 1, H0633: 1,
S0472: 1, S0422: 1,

HPDOP20	HPDOP20R	1824	3 - 512	3999	H0529: 1, L0536: 1, L0770: 1, L0761: 1, L0772: 1, L0373: 1, L0771: 1, L0648: 1, L0662: 1, L0803: 1, L0606: 1, L0629: 1, L0636: 1, L0517: 1, L0526: 1, L0783: 1, L0384: 1, L0544: 1, L0367: 1, H0697: 1, S0122: 1, H0689: 1, H0711: 1, H0683: 1, H0658: 1, H0660: 1, H0648: 1, H0672: 1, H0539: 1, H0710: 1, H0518: 1, H0521: 1, H0555: 1, H0478: 1, S0037: 1, L0740: 1, L0754: 1, L0756: 1, L0777: 1, L0753: 1, S0434: 1, L0588: 1, L0591: 1, L0594: 1, H0668: 1, S0026: 1, H0422: 1 and S0424: 1.
HPDOS87	HPDOS87R	1825	3 - 272	4000	
HPDOU54	HPDOU54R	1826	3 - 287	4001	H0694: 48, L0777: 14, H0521: 11, L0794: 10, L0748: 10, L0747: 10, S0214: 9, S0360: 8,

S0003: 8, H0644: 8, L0439: 8, H0553: 7, L0662: 7, L0659: 7, L0588: 7, H0543: 7, H0038: 6, L0646: 6, H0436: 6, L0740: 6, H0341: 5, S0358: 5, H0580: 5, H0545: 5, H0494: 5, L0666: 5, L0665: 5, L0779: 5, L0599: 5, H0542: 5, H0656: 4, H0486: 4, H0046: 4, H0014: 4, H0551: 4, S0440: 4, H0529: 4, L0764: 4, L0809: 4, S0126: 4, S0406: 4, L0757: 4, S0436: 4, L0591: 4, L0485: 4, L0362: 4, H0423: 4, H0624: 3, S0376: 3, S0444: 3, S0408: 3, S0410: 3, H0581: 3, H0031: 3, H0090: 3, S0142: 3, L0770: 3, L0637: 3, L0772: 3, L0521: 3, L0766: 3, L0774: 3, L0663: 3, L0664: 3, T0068: 3, H0547: 3, H0539: 3, L0758: 3

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S0222: 1, H0431: 1,
H0455: 1, H0600: 1,
H0592: 1, H0586: 1,
H0331: 1, H0574: 1,
H0485: 1, T0040: 1,
T0109: 1, H0427: 1,
H0156: 1, H0575: 1,
H0004: 1, H0274: 1,
S0346: 1, H0310: 1,
H0052: 1, L0040: 1,
H0597: 1, H0572: 1,
H0123: 1, H0050: 1,
L0471: 1, H0375: 1,
H0594: 1, H0687: 1,
H0252: 1, H0039: 1,
L0142: 1, H0628: 1,
H0617: 1, H0032: 1,
H0169: 1, H0674: 1,
L0455: 1, H0068: 1,
H0598: 1, H0135: 1,
H0163: 1, H0634: 1,
H0264: 1, H0272: 1,
H0413: 1, T0069: 1,
T0041: 1, H0625: 1,
H0561: 1, S0450: 1,
S0438: 1, H0509: 1,
H0131: 1, H0654: 1,
S0344: 1, S0210: 1,
S0002: 1, S0426: 1,
L0451: 1, L0520: 1,

HPDOZ43	HPDOZ43R	1827	1 - 504	4002	L0762: 1, L0763: 1, L0761: 1, L0773: 1, L0768: 1, L0386: 1, L0650: 1, L0375: 1, L0651: 1, L0654: 1, L0776: 1, L0527: 1, L0526: 1, L0518: 1, L0519: 1, L0545: 1, L0787: 1, L4501: 1, S0428: 1, S0216: 1, H0144: 1, H0691: 1, S0148: 1, H0519: 1, H0435: 1, H0658: 1, H0660: 1, H0666: 1, S0330: 1, S0152: 1, S0044: 1, H0479: 1, S0390: 1, S3014: 1, L0744: 1, L0750: 1, L0756: 1, L0752: 1, L0755: 1, L0731: 1, H0707: 1, L0594: 1, L0361: 1, S0026: 1, H0665: 1, S0196: 1, H0422: 1, S0458: 1 and H0506: 1.
HPDPC65	HPDPC65RA	1828	2 - 178	4003	
HPDPC90	HPDPC90RA	1829	294 - 485	4004	
HPDPH14	HPDPH14R	1830	94 - 291	4005	Pro-6 to Gly-35, Arg-41 to Glu-47.

HPDPK37	HPDPK37R	1831	1 - 420	4006		
HPDPN83	HPDPN83R	1832	365 - 3	4007		L0784: 2, H0428: 1, H0644: 1, S0366: 1, L0659: 1, L0636: 1, L0789: 1 and H0658: 1.
HPDPP69	HPDPP69R	1833	260 - 463	4008		L0766: 2 and H0658: 2.
HPDPQ10	HPDPQ10R	1834	369 - 581	4009	Gln-15 to Arg-20, Arg-35 to Ser-40.	
HPDPQ16	HPDPQ16R	1835	244 - 456	4010	Ile-5 to Lys-20.	L0794: 4, H0351: 3, H0083: 2, H0520: 2, H0658: 2, H0657: 1, H0341: 1, S0358: 1, L0586: 1, L0021: 1, T0110: 1, H0328: 1, H0040: 1, H0616: 1, H0625: 1, S0438: 1, S0440: 1, S0150: 1, H0130: 1, H0641: 1, L0800: 1, L0768: 1, L0803: 1, L0776: 1, L0657: 1, H0660: 1, S0328: 1, S0380: 1, S0406: 1, L0747: 1, H0343: 1, H0136: 1, H0423: 1, H0422: 1 and S0424: 1.
HPDPR73	HPDPR73R	1836	80 - 463	4011	Asp-28 to His-35, Phe-43 to Trp-48, Asn-81 to Arg-86.	

HPDPS51	HPDPS51R	1837	2 - 214	4012	L0770: 4, L0771: 4, L0769: 3, L0757: 3, L0766: 2, L0779: 2, L0758: 2, H0170: 1, H0686: 1, S0476: 1, H0586: 1, L0637: 1, L0761: 1, L0803: 1, L0774: 1, L0776: 1, L0659: 1, L0809: 1, L0791: 1, H0658: 1, H0696: 1, S3012: 1, S0390: 1, L0747: 1, L0752: 1, L0753: 1, L0759: 1, S0434: 1, L0592: 1 and H0543: 1.
HPDPS90	HPDPS90R	1838	2 - 421	4013	
HPDPT86	HPDPT86R	1839	378 - 533	4014	Asp-17 to Asn-30. L0439: 4, H0658: 2, S0474: 1, L0794: 1, L0804: 1, L0791: 1, L0755: 1 and L0599: 1.
HPDPU66	HPDPU66R	1840	2 - 262	4015	
HPDPX12	HPDPX12RP00B	1841	2 - 418	4016	
HPDPY83	HPDPY83RP00B	1842	148 - 405	4017	Lys-32 to Glu-39, Glu-43 to Ala-50, Ala-52 to Glu-80.
HPDQC34	HPDQC34R	1843	1 - 693	4018	
HPDQG58	HPDQG58R	1844	2 - 235	4019	
HPDQH11	HPDQH11R	1845	2 - 334	4020	

HPDQH34	HPDQH34R	1846	105 - 308	4021		
HPDQI50	HPDQI50R	1847	3 - 545	4022	Gln-12 to Ser-19, Gln-40 to Gln-54.	H0052: 11, L0439: 10, L0775: 8, H0046: 7, L0748: 7, L0438: 6, L0750: 6, L0666: 5, L0599: 5, S0358: 4, H0620: 4, H0038: 4, H0413: 4, L0369: 4, L0769: 4, L0659: 4, L0665: 4, S0328: 4, L0758: 4, S0418: 3, S0442: 3, S0410: 3, H0619: 3, H0599: 3, L0662: 3, L0768: 3, L0774: 3, L0653: 3, H0660: 3, H0521: 3, L0731: 3, S0434: 3, L0601: 3, S0026: 3, S0424: 3, H0556: 2, T0002: 2, H0295: 2, H0583: 2, H0656: 2, S0376: 2, S0444: 2, H0580: 2, S0045: 2, S0046: 2, S0222: 2, H0592: 2, H0586: 2, N0009: 2, H0013: 2, H0575: 2, H0618: 2, H0318: 2, H0196: 2, H0012: 2, H0373: 2,

T0010: 2, S6028: 2,
S0214: 2, H0031: 2,
L0456: 2, H0708: 2,
H0551: 2, H0264: 2,
S0440: 2, H0509: 2,
H0529: 2, L0763: 2,
L0638: 2, L0637: 2,
L0764: 2, L0381: 2,
L0657: 2, L0783: 2,
L0663: 2, S0152: 2,
H0478: 2, S0028: 2,
L0741: 2, L0777: 2,
L0596: 2, L0588: 2,
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L0604: 2, H0665: 2,
H0136: 2, H0543: 2,
H0170: 1, H0265: 1,
S0040: 1, H0717: 1,
H0657: 1, L0417: 1,
L0785: 1, H0381: 1,
S0116: 1, H0341: 1,
H0664: 1, H0402: 1,
H0450: 1, S0356: 1,
S0360: 1, H0208: 1,
S0476: 1, H0411: 1,
H0409: 1, H0613: 1,
H0587: 1, H0497: 1,
H0333: 1, H0643: 1,
H0574: 1, L0623: 1,
T0039: 1, H0427: 1,

L0021: 1, T0082: 1, H0036: 1, H0253: 1, S0010: 1, T0048: 1, S0182: 1, S0474: 1, H0263: 1, T0110: 1, L0040: 1, H0327: 1, L0471: 1, H0010: 1, H0024: 1, H0015: 1, H0416: 1, H0290: 1, H0292: 1, S0003: 1, L0483: 1, H0030: 1, H0553: 1, H0674: 1, S0364: 1, S0366: 1, H0059: 1, S0038: 1, L0564: 1, T0042: 1, H0494: 1, S0016: 1, H0560: 1, H0641: 1, H0646: 1, S0426: 1, L0371: 1, L0770: 1, L0761: 1, L0667: 1, L0772: 1, L0372: 1, L0646: 1, L0642: 1, L0374: 1, L0766: 1, L0651: 1, L0378: 1, L0776: 1, L0655: 1, L0511: 1, L0656: 1, L0636: 1, L0382: 1, L0664: 1, H0698: 1, H0702: 1, H0723: 1, H0520: 1, H0547: 1,

HPDQI55	HPDQI55R	1848	1 - 441	4023	
					H0519: 1, H0711: 1, H0659: 1, H0658: 1, H0666: 1, H0648: 1, H0672: 1, S0378: 1, L0602: 1, H0518: 1, H0522: 1, S0406: 1, H0555: 1, H0187: 1, S0027: 1, S0032: 1, L0742: 1, L0754: 1, L0747: 1, L0780: 1, L0757: 1, L0759: 1, S0031: 1, S0436: 1, L0592: 1, L0581: 1, L0608: 1, L0593: 1, L0362: 1, L0366: 1, H0667: 1, H0542: 1, H0422: 1 and H0352: 1. L0779: 5, L0803: 4, H0170: 3, L0663: 3, L0777: 3, H0687: 2, H0328: 2, H0038: 2, L0521: 2, L0809: 2, L0759: 2, L0589: 2, H0171: 1, S0046: 1, S0300: 1, L0717: 1, H0369: 1, H0550: 1, S0222: 1, H0586: 1, H0574: 1, H0042: 1, S0010: 1, H0544: 1, H0620: 1, H0014: 1,

HPDQI70	HPDQI70R	1849	2 - 646	4024		H0373: 1, H0510: 1, S0003: 1, H0644: 1, H0316: 1, S0036: 1, H0063: 1, H0264: 1, H0509: 1, L0762: 1, L0662: 1, L0794: 1, L0649: 1, L0659: 1, L0518: 1, L0783: 1, L0789: 1, H0144: 1, H0547: 1, H0659: 1, H0658: 1, S0328: 1, H0696: 1, L0747: 1, L0780: 1, L0731: 1, L0588: 1, L0591: 1, L0599: 1 and L0595: 1.
HPDQL55	HPDQL55R	1850	256 - 711	4025	Pro-5 to Arg-25, Lys-32 to Ser-39, Pro-63 to Pro-79, Pro-115 to His-121.	L0774: 3, L0809: 2, H0483: 1, H0306: 1, H0599: 1, H0618: 1, H0083: 1, H0644: 1, H0617: 1, H0606: 1, H0087: 1, L0369: 1, L0763: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0790: 1, L0665: 1, H0658: 1, H0696: 1, L0748: 1, L0780: 1 and L0757: 1.
HPDQR20	HPDQR20R	1851	1 - 639	4026		L0777: 21, L0748: 16, L0439: 12, S0360: 9,

L0659: 9, L0666: 9,
L0803: 8, L0662: 7,
L0747: 7, L0794: 6,
L0663: 5, S0406: 5,
L0770: 4, L0731: 4,
L0758: 4, S0026: 4,
S0356: 3, L0717: 3,
H0156: 3, L0769: 3,
L0809: 3, L0664: 3,
H0520: 3, H0672: 3,
H0521: 3, H0696: 3,
L0750: 3, S0192: 3,
H0542: 3, H0423: 3,
H0624: 2, H0657: 2,
S0420: 2, S0358: 2,
S0376: 2, S0408: 2,
H0013: 2, S0003: 2,
S0214: 2, H0264: 2,
H0412: 2, H0413: 2,
S0440: 2, L0764: 2,
L0766: 2, L0804: 2,
L0774: 2, L0775: 2,
L0806: 2, L0655: 2,
L0665: 2, S0374: 2,
L0438: 2, H0547: 2,
H0519: 2, H0689: 2,
H0660: 2, S0380: 2,
H0522: 2, S0206: 2,
L0749: 2, L0752: 2,
L0759: 2, L0361: 2,

S0242: 2, H0170: 1, H0171: 1, L0448: 1, H0685: 1, H0716: 1, S0114: 1, H0656: 1, L0785: 1, S0400: 1, S0442: 1, S0444: 1, S0300: 1, S0222: 1, H0431: 1, H0586: 1, H0632: 1, L0623: 1, H0069: 1, H0036: 1, H0581: 1, H0309: 1, H0263: 1, H0327: 1, H0545: 1, H0150: 1, L0471: 1, H0024: 1, H0014: 1, T0010: 1, H0083: 1, H0252: 1, H0615: 1, H0688: 1, H0622: 1, L0483: 1, H0068: 1, S0366: 1, H0598: 1, H0163: 1, H0090: 1, H0040: 1, T0067: 1, H0623: 1, T0069: 1, H0494: 1, S0372: 1, S0448: 1, H0714: 1, H0641: 1, S0142: 1, S0210: 1, L0369: 1, L0646: 1, L0641: 1, L0771: 1, L0387: 1, L0651: 1, L0378: 1, L0653: 1,

HPDQR88	HPDQR88R	1852	2 - 550	4027	Gln-121 to Glu-136, Ala-153 to Ser-162, Ala-176 to Ser-182.	L0542: 1, L0647: 1, L0787: 1, H0658: 1, H0670: 1, H0648: 1, H0539: 1, H0710: 1, S0332: 1, H0478: 1, H0627: 1, L0755: 1, S0436: 1, L0605: 1, L0362: 1, H0667: 1, S0276: 1, H0543: 1, H0422: 1, H0506: 1 and H0352: 1.
HPDQS14	HPDQS14R	1853	113 - 325	4028		
HPDQS25	HPDQS25R	1854	25 - 273	4029		
HPDQS63	HPDQS63R	1855	25 - 258	4030	Phe-25 to Arg-34, Cys-51 to His-56, Glu-66 to Ser-75.	
HPDQS66	HPDQS66R	1856	134 - 322	4031		H0658: 2, L0745: 2, S0422: 1, H0648: 1 and L0731: 1.
HPDQS76	HPDQS76R	1857	41 - 175	4032	His-2 to Trp-13, Lys-22 to Cys-31.	L0748: 9, L0774: 3, H0331: 2, H0632: 2, L0526: 2, H0658: 2, L0581: 2, H0574: 1 and L0790: 1.
HPDQT32	HPDQT32R	1858	3 - 410	4033	Gly-17 to Glu-26, Lys-32 to Leu-37, Phe-46 to Thr-52,	H0542: 11, H0265: 7, H0543: 7, L0751: 5, S0424: 5, H0556: 4,

Ile-103 to Gly-109, Lys-128 to Gln-136.	S0420: 4, S0010: 4, S0142: 4, L0659: 4, L0743: 4, L0747: 4, L0753: 4, H0657: 3, H0370: 3, H0618: 3, H0251: 3, H0545: 3, H0457: 3, H0620: 3, H0644: 3, H0560: 3, L0775: 3, L0663: 3, H0672: 3, S3012: 3, L0748: 3, S0212: 2, S0418: 2, S0360: 2, H0580: 2, S0222: 2, H0427: 2, H0253: 2, S0049: 2, H0327: 2, L0471: 2, H0617: 2, H0124: 2, S0366: 2, H0412: 2, L0667: 2, L0655: 2, H0690: 2, H0682: 2, H0658: 2, H0670: 2, H0660: 2, H0627: 2, S0027: 2, L0741: 2, L0740: 2, H0506: 2, H0170: 1, T0002: 1, H0686: 1, H0381: 1, H0484: 1, H0255: 1, H0663: 1, H0664: 1, H0638: 1, S0358: 1, H0675: 1, H0637: 1, S0468: 1,

H0208: 1, S0132: 1,
S0278: 1, S0005: 1,
H0497: 1, H0156: 1,
L0021: 1, H0318: 1,
H0052: 1, T0103: 1,
H0544: 1, H0178: 1,
H0172: 1, S0051: 1,
H0083: 1, H0355: 1,
H0510: 1, H0594: 1,
H0188: 1, H0687: 1,
H0622: 1, L0194: 1,
L0483: 1, T0006: 1,
H0033: 1, H0424: 1,
H0031: 1, H0606: 1,
H0166: 1, H0674: 1,
H0591: 1, H0063: 1,
H0087: 1, T0067: 1,
L0351: 1, H0494: 1,
H0561: 1, S0352: 1,
S0440: 1, H0633: 1,
H0647: 1, S0144: 1,
S0344: 1, S0426: 1,
H0529: 1, L0369: 1,
L0372: 1, L0646: 1,
L0800: 1, L0662: 1,
L0768: 1, L0766: 1,
L0650: 1, L0376: 1,
L0776: 1, L0657: 1,
L0636: 1, L0542: 1,
L0783: 1, L0787: 1,

| HPDQU81 | HPDQU81R | 1859 | 3 - 269 | 4034 | Pro-25 to Thr-32. | L0666: 1, L0664: 1, L0665: 1, H0593: 1, H0684: 1, H0435: 1, H0659: 1, S0328: 1, S0330: 1, H0539: 1, S0378: 1, H0521: 1, H0555: 1, H0631: 1, L0744: 1, L0750: 1, L0777: 1, L0752: 1, L0757: 1, L0758: 1, L0596: 1, L0485: 1, L0593: 1, L0601: 1, S0011: 1, S0026: 1, S0192: 1 and H0352: 1. | L0731: 4, L0775: 3, L0740: 3, H0170: 2, S0426: 2, L0770: 2, L0646: 2, L0766: 2, L0754: 2, H0344: 1, H0295: 1, H0393: 1, H0592: 1, H0318: 1, S6028: 1, H0038: 1, H0551: 1, L0642: 1, L0803: 1, L0774: 1, L0776: 1, L0663: 1, H0658: 1, S0332: 1, L0748: 1, L0777: 1, L0752: 1, L0757: 1, H0445: 1, S0424: 1 and S0384: 1. |

HPDQV07	HPDQV07R	1860	2 - 421	4035		
HPDQV49	HPDQV49R	1861	246 - 401	4036		
HPDQW39	HPDQW39R	1862	68 - 550	4037	Asn-20 to Asp-25, Met-75 to Asp-81, Arg-144 to Thr-152.	AR104: 42, AR089: 22, AR060: 7, AR096: 4, AR055: 2, AR061: 1
HPDQX13	HPDQX13R	1863	113 - 391	4038	Lys-1 to Leu-23, Ala-27 to Ser-34, Gly-36 to Phe-44.	
HPDQY23	HPDQY23R	1864	3 - 476	4039		
HPDQY65	HPDQY65R	1865	3 - 437	4040		
HPDQY88	HPDQY88R	1866	164 - 340	4041		
HPDQY95	HPDQY95R	1867	29 - 430	4042	Leu-11 to Cys-24, Leu-30 to Ser-36, Gly-93 to Glu-99.	
HPDQZ30	HPDQZ30R	1868	212 - 538	4043		
HPDQZ65	HPDQZ65R	1869	3 - 506	4044	Ser-120 to Tyr-126, Gly-137 to Arg-142, Ser-160 to Ser-168.	
HPDRA44	HPDRA44R	1870	1 - 525	4045		
HPDRA50	HPDRA50R	1871	1 - 384	4046		
HPDRF65	HPDRF65R	1872	230 - 559	4047	Glu-1 to Pro-9.	
HPDRG34	HPDRG34R	1873	79 - 270	4048		H0031: 2, H0135: 1, H0272: 1 and H0658: 1.
HPDRG73	HPDRG73R	1874	2 - 481	4049	Ala-2 to Gly-8.	
HPDRM77	HPDRM77R	1875	1 - 177	4050		
HPDRM93	HPDRM93R	1876	3 - 302	4051		
HPDRO04	HPDRO04R	1877	2 - 307	4052	Gly-1 to Cys-24,	

HPDRO64	HPDRO64R	1878	249 - 509	4053	Cys-27 to Gly-43, Ala-46 to Trp-54, Ala-56 to Arg-68, Phe-83 to Arg-93. Thr-4 to His-17, Ser-21 to Gln-27.	S0132: 1, H0156: 1, H0575: 1, H0551: 1, H0658: 1, H0670: 1, H0555: 1 and L0439: 1.
HPDRP36	HPDRP36R	1879	3 - 323	4054	Thr-57 to Phe-62, Gly-68 to Phe-73, His-86 to Tyr-92, Asp-97 to Phe-103.	L0766: 11, L0752: 7, L0754: 5, H0547: 4, S0358: 3, S0022: 3, L0756: 3, L0777: 3, H0625: 2, L0065: 2, S0438: 2, L0805: 2, L0776: 2, H0658: 2, S0328: 2, L0740: 2, L0745: 2, L0747: 2, L0750: 2, L0731: 2, L0601: 2, H0542: 2, H0543: 2, H0423: 2, S0424: 2, H0341: 1, H0661: 1, H0664: 1, H0306: 1, H0402: 1, H0638: 1, S0360: 1, H0580: 1, H0645: 1, H0443: 1, H0357: 1, H0592: 1, H0587: 1, H0574: 1, H0486: 1, H0270: 1, H0156: 1, T0048: 1, H0052: 1,

HPDRP41	HPDRP41R	1880	2 - 622	4055	Gly-8 to Val-14, Gln-20 to Asp-27, Met-79 to His-88, Arg-171 to Tyr-183, Pro-198 to Gly-204.	H0375: 1, H0687: 1, H0328: 1, H0169: 1, H0598: 1, H0551: 1, H0413: 1, T0042: 1, H0561: 1, S0422: 1, H0529: 1, L0520: 1, L0536: 1, L0772: 1, L0649: 1, L0803: 1, L0809: 1, L0666: 1, L0665: 1, H0144: 1, H0520: 1, H0519: 1, H0659: 1, H0651: 1, S0380: 1, H0696: 1, S0404: 1, S0406: 1, H0555: 1, L0744: 1, L0749: 1, L0753: 1, L0757: 1, L0759: 1, H0445: 1, S0434: 1, S0436: 1, L0599: 1, L0608: 1, L0594: 1 and H0422: 1.
HPDRQ66	HPDRQ66R	1881	27 - 290	4056		L0748: 3, H0556: 2, S0420: 2, S0045: 2, H0171: 1, H0265: 1, S0134: 1, H0657: 1,

					H0341: 1, S0110: 1, H0661: 1, H0305: 1, H0580: 1, S0007: 1, S0046: 1, S0132: 1, S0278: 1, H0257: 1, H0069: 1, H0575: 1, T0048: 1, H0327: 1, H0252: 1, H0634: 1, H0412: 1, H0059: 1, H0633: 1, S0344: 1, H0529: 1, L0521: 1, L0806: 1, L0805: 1, H0435: 1, H0658: 1, H0672: 1, S0378: 1, L0747: 1, L0599: 1, S0026: 1 and H0542: 1.
HPDRQ84	HPDRQ84R	1882	1 - 441	4057	Gly-6 to Ser-16, Glu-19 to Ala-33, Glu-44 to Lys-60, Ile-135 to Lys-147.
HPDRR71	HPDRR71R	1883	1 - 543	4058	Ala-3 to Lys-11, Gly-112 to Glu-117.
HPDRS43	HPDRS43R	1884	59 - 211	4059	
HPDRS46	HPDRS46R	1885	3 - 332	4060	Lys-94 to Ser-100.
HPDRS87	HPDRS87R	1886	2 - 508	4061	Lys-32 to Glu-38, Ser-44 to Ser-55, Gln-67 to Gly-78, Glu-85 to Glu-90, Gly-108 to Ser-114, Phe-149 to Lys-158.

HPDRT36	HPDRT36R	1887	59 - 214	4062	Lys-25 to Arg-36.
					L0754: 19, L0731: 18, H0521: 15, L0777: 11, L0766: 8, L0755: 7, H0581: 6, L0659: 6, L0751: 6, H0486: 5, H0266: 5, H0553: 5, L0662: 5, L0663: 5, H0144: 5, L0439: 5, S0276: 5, H0638: 4, S0360: 4, H0644: 4, S0374: 4, S0330: 4, L0740: 4, L0756: 4, L0599: 4, L0362: 4, H0423: 4, H0657: 3, H0663: 3, H0580: 3, H0575: 3, S0003: 3, H0622: 3, H0124: 3, H0264: 3, H0623: 3, S0002: 3, L0520: 3, L0764: 3, L0775: 3, L0655: 3, L0519: 3, H0519: 3, H0659: 3, H0658: 3, S0328: 3, L0744: 3, L0747: 3, L0759: 3, S0026: 3, S0194: 3, H0624: 2, H0656: 2, H0341: 2, S0354: 2, S0408: 2, S0046: 2, H0619: 2, H0013: 2, H0250: 2,

H0545: 2, L0471: 2, H0428: 2, L0142: 2, H0551: 2, T0067: 2, H0561: 2, H0641: 2, S0210: 2, L0772: 2, L0771: 2, L0794: 2, L0803: 2, L0661: 2, L0544: 2, L0793: 2, L0666: 2, L0665: 2, S0216: 2, L0565: 2, H0648: 2, S0152: 2, H0522: 2, H0555: 2, H0345: 2, S0027: 2, L0750: 2, L0779: 2, L0752: 2, L0758: 2, H0445: 2, S0434: 2, L0591: 2, L0594: 2, H0653: 2, H0422: 2, H0159: 1, S0134: 1, H0583: 1, H0650: 1, S0212: 1, H0661: 1, H0662: 1, H0402: 1, S0358: 1, S0444: 1, T0008: 1, S0045: 1, S0132: 1, H0411: 1, H0369: 1, H0370: 1, T0039: 1, T0060: 1, H0042: 1, H0590: 1, T0048: 1, H0318: 1, H0596: 1, L0738: 1,

H0046: 1, L0157: 1,
H0565: 1, H0024: 1,
S0388: 1, H0267: 1,
S0250: 1, S0214: 1,
H0328: 1, H0030: 1,
H0383: 1, H0673: 1,
H0169: 1, H0316: 1,
H0163: 1, H0090: 1,
H0591: 1, H0040: 1,
H0634: 1, H0488: 1,
H0268: 1, H0412: 1,
H0413: 1, H0056: 1,
L0435: 1, H0494: 1,
S0370: 1, H0646: 1,
H0652: 1, S0344: 1,
S0426: 1, L0371: 1,
L0646: 1, L0800: 1,
L0765: 1, L0648: 1,
L0768: 1, L0389: 1,
L0552: 1, L0774: 1,
L0805: 1, L0653: 1,
L0776: 1, L0658: 1,
L0542: 1, L0809: 1,
L0647: 1, H0701: 1,
H0691: 1, S0126: 1,
H0711: 1, H0683: 1,
H0518: 1, S0454: 1,
S0013: 1, H0479: 1,
S0206: 1, L0743: 1,
S0260: 1, H0343: 1,

HPDRT37	HPDRT37R	1888	3 - 560	4063	Ala-2 to Asp-9, Arg-18 to Gly-26, Asn-34 to Arg-43, Ala-52 to Asp-57.	L0584: 1, H0542: 1 and S0412: 1.
HPDRT38	HPDRT38R	1889	2 - 196	4064	Leu-48 to Lys-63.	
HPDRU03	HPDRU03R	1890	2 - 334	4065		
HPDRU37	HPDRU37R	1891	1 - 297	4066	Glu-11 to Pro-16, Arg-46 to Tyr-56, Asp-63 to Asp-69.	
HPDRU71	HPDRU71R	1892	458 - 703	4067		
HPDRV73	HPDRV73R	1893	1 - 528	4068	Glu-54 to Val-64, Leu-97 to Leu-105.	
HPDRV79	HPDRV79R	1894	300 - 596	4069	Ser-14 to Gly-20.	L0794: 6, L0758: 6, L0747: 5, L0770: 4, L0809: 4, H0620: 3, L0764: 3, H0658: 3, H0618: 2, H0012: 2, H0135: 2, L0769: 2, L0771: 2, L0773: 2, L0662: 2, L0803: 2, L0532: 2, S0126: 2, L0756: 2, S6024: 1, S0282: 1, H0638: 1, S0420: 1, L0717: 1, S0222: 1, H0441: 1, H0333: 1, L0622: 1, H0309: 1, H0597: 1, S0388: 1, S0051: 1,

HPDRW09	HPDRW09R	1895	1 - 231	4070	Ala-31 to Gln-37, Lys-63 to Ser-69.	T0010: 1, H0271: 1, H0687: 1, L0483: 1, H0604: 1, H0030: 1, H0181: 1, H0617: 1, H0412: 1, L0667: 1, L0646: 1, L0800: 1, L0643: 1, L0374: 1, L0364: 1, L0766: 1, L0649: 1, L0804: 1, L0523: 1, L0805: 1, L0655: 1, L0607: 1, L0657: 1, L0559: 1, L0659: 1, L0517: 1, L0529: 1, L0647: 1, L0787: 1, L0789: 1, L0666: 1, L0663: 1, L0665: 1, T0068: 1, L0438: 1, H0670: 1, H0627: 1, L0748: 1, L0439: 1, L0751: 1, L0777: 1, L0731: 1, L0757: 1, S0031: 1, L0605: 1, H0542: 1, H0543: 1, H0423: 1, L0697: 1 and S0462: 1.
HPDRW51	HPDRW51R	1896	192 - 587	4071		
HPDRY37	HPDRY37R	1897	2 - 322	4072	Pro-3 to Gly-8, Pro-70 to Pro-85.	

HPDRZ11	HPDRZ11R	1898	1 - 354	4073	Arg-13 to Gly-26, Asn-35 to Gln-40.	
HPDRZ29	HPDRZ29R	1899	3 - 509	4074	Val-30 to Trp-36, Ala-53 to Glu-67.	H0457: 9, L0766: 7, H0046: 5, H0650: 4, H0634: 3, L0659: 3, L0439: 3, H0716: 2, H0656: 2, H0254: 2, H0255: 2, H0333: 2, H0253: 2, H0081: 2, H0083: 2, H0628: 2, L0761: 2, L0800: 2, H0658: 2, L0750: 2, H0543: 2, H0422: 2, H0265: 1, H0657: 1, S0001: 1, S0420: 1, S0354: 1, S0376: 1, S0360: 1, H0722: 1, S0045: 1, H0550: 1, S0222: 1, H0614: 1, H0613: 1, H0069: 1, H0427: 1, H0575: 1, H0318: 1, H0581: 1, H0052: 1, H0327: 1, H0545: 1, H0041: 1, H0050: 1, H0354: 1, H0266: 1, H0179: 1, H0428: 1, H0622: 1, S0366: 1, S0036: 1, H0087: 1, H0264: 1, H0488: 1, L0435: 1,

HPDVA01	HPDVA01R	1900	774 - 484	4075			
HPDVA06	HPDVA06R	1901	243 - 380	4076			
HPDVB37	HPDVB37R	1902	40 - 315	4077	Pro-2 to Lys-18.	H0022: 1, T0041: 1, H0560: 1, S0142: 1, S0426: 1, H0695: 1, H0529: 1, L0644: 1, L0764: 1, L0662: 1, L0649: 1, L0375: 1, L0805: 1, L0658: 1, L0809: 1, L0789: 1, L0792: 1, L0532: 1, L0663: 1, L0664: 1, L0665: 1, H0670: 1, H0672: 1, S0330: 1, H0539: 1, H0518: 1, H0521: 1, S0406: 1, H0555: 1, H0436: 1, S3012: 1, S3014: 1, S0027: 1, S0028: 1, L0744: 1, L0749: 1, L0756: 1, H0445: 1, S0434: 1, H0136: 1, S0276: 1 and H0542: 1.	L0748: 10, L0803: 3, L0439: 3, L0751: 3, L0626: 2, L0809: 2, L0790: 2, H0658: 2, L0744: 2, L0740: 2, L0754: 2, L0747: 2, L0756: 2, L0752: 2,

HPDVB70	HPDVB70R	1903	2 - 778	4078	L0758: 2, H0170: 1, H0645: 1, H0351: 1, H0370: 1, H0497: 1, S0388: 1, T0067: 1, L0772: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0774: 1, L0776: 1, L0666: 1, L0663: 1, L0665: 1, L0438: 1, S0044: 1, L0745: 1, L0749: 1, L0755: 1, L0757: 1 and S0031: 1.
HPDVC28	HPDVC28R	1904	50 - 136	4079	
HPDVE55	HPDVE55R	1905	89 - 220	4080	Pro-8 to Pro-13.
HPDVG06	HPDVG06R	1906	3 - 326	4081	Gln-22 to Val-33, Pro-37 to Gly-45, Ser-56 to Thr-65, Arg-82 to Thr-92.
HPDVG67	HPDVG67R	1907	193 - 450	4082	Glu-79 to Gln-86.
HPDVI25	HPDVI25R	1908	1 - 510	4083	Met-32 to Lys-37, Asp-44 to Ala-60.
HPDVI95	HPDVI95R	1909	3 - 338	4084	Ala-32 to Thr-42, Lys-55 to Phe-60, Asp-85 to Gly-90, Arg-95 to Thr-100.
HPDVK74	HPDVK74R	1910	3 - 425	4085	Ile-20 to Gly-29, Asn-82 to Thr-87.

HPDVK79	HPDVK79R	1911	61 - 597	4086	Arg-8 to Lys-13, Gly-35 to Lys-42, Ala-48 to Lys-54.	
HPDVK93	HPDVK93R	1912	2 - 697	4087		
HPDVL36	HPDVL36R	1913	8 - 265	4088		
HPDVL45	HPDVL45R	1914	1 - 303	4089	Gly-1 to Phe-8, Pro-39 to Thr-61, Pro-66 to Phe-71, Arg-84 to Pro-89.	H0656: 3, S0218: 1, S0116: 1, S0356: 1, H0586: 1, H0333: 1, H0486: 1, H0427: 1, S0280: 1, H0545: 1, H0135: 1, H0087: 1, H0695: 1, H0547: 1, H0435: 1, H0658: 1, H0670: 1, H0672: 1, H0521: 1, L0439: 1, H0543: 1 and H0423: 1.
HPDVL52	HPDVL52R	1915	60 - 350	4090	Ala-5 to Val-11, Leu-15 to Lys-23, Lys-39 to Ile-44.	H0656: 1, S0116: 1, S0376: 1, T0110: 1, T0042: 1, H0494: 1, L0649: 1, L0774: 1, L0665: 1, H0658: 1, L0748: 1, L0757: 1, H0667: 1 and H0543: 1.
HPDVM61	HPDVM61R	1916	101 - 364	4091	Lys-13 to Leu-24, Arg-31 to Pro-54.	
HPDVM63	HPDVM63R	1917	1 - 576	4092	Ala-34 to Thr-46, Asp-59 to Lys-73, Ala-86 to Gln-94, Pro-99 to Gln-109, Glu-129 to Thr-141,	

HPDVM86	HPDVM86R	1918	2 - 406	4093	Asp-160 to Asn-168.	Ala-33 to Cys-41, Thr-58 to Pro-66.	H0521: 43, S0278: 39, S0144: 30, S0142: 26, H0522: 18, S0344: 15, S0002: 14, H0638: 13, H0580: 11, H0641: 10, L0755: 10, L0599: 10, H0250: 9, H0271: 8, H0622: 8, H0575: 7, S0426: 7, L0775: 7, L0776: 7, L0751: 7, L0754: 7, H0125: 6, S0376: 6, S0132: 6, H0069: 6, H0090: 6, S0360: 5, H0486: 5, S0022: 5, L0731: 5, H0584: 4, H0657: 4, S0354: 4, S0358: 4, S0140: 4, H0581: 4, H0674: 4, L0764: 4, L0657: 4, L0665: 4, S0052: 4, S0428: 4, L0749: 4, L0752: 4, H0445: 4, L0591: 4, H0656: 3, L0785: 3, H0663: 3, H0370: 3, H0042: 3, H0004: 3, H0318: 3, H0031: 3, H0059: 3, L0769: 3,

L0372: 3, L0646: 3, L0806: 3, L0659: 3, L0666: 3, S0126: 3, H0658: 3, H0518: 3, H0555: 3, L0750: 3, H0255: 2, H0662: 2, H0637: 2, H0431: 2, H0574: 2, H0632: 2, H0545: 2, H0083: 2, S0214: 2, H0644: 2, H0032: 2, H0634: 2, S0440: 2, H0652: 2, L0770: 2, L0637: 2, L0771: 2, L0653: 2, L0783: 2, L0664: 2, H0660: 2, H0134: 2, H0187: 2, S3014: 2, L0748: 2, L0777: 2, L0758: 2, S0434: 2, L0595: 2, L0601: 2, H0167: 1, H0159: 1, S0342: 1, S0114: 1, S0134: 1, H0650: 1, H0661: 1, H0664: 1, H0306: 1, H0402: 1, H0192: 1, S0418: 1, H0645: 1, H0393: 1, H0537: 1, T0104: 1, H0586: 1, H0497: 1, H0331: 1, H0101: 1,

H0635: 1, H0427: 1,
H0309: 1, H0231: 1,
H0544: 1, H0546: 1,
H0046: 1, H0012: 1,
H0620: 1, H0024: 1,
H0107: 1, H0179: 1,
H0416: 1, H0188: 1,
S0003: 1, H0688: 1,
H0029: 1, H0553: 1,
L0142: 1, H0628: 1,
L0055: 1, H0383: 1,
H0673: 1, H0189: 1,
H0124: 1, H0068: 1,
H0063: 1, H0087: 1,
S0472: 1, L0369: 1,
L0762: 1, L0761: 1,
L0772: 1, L0773: 1,
L0662: 1, L0767: 1,
L0387: 1, L0766: 1,
L0649: 1, L0533: 1,
L0522: 1, L0774: 1,
L0784: 1, L0652: 1,
L0655: 1, L0379: 1,
L0629: 1, L0544: 1,
L0367: 1, L0368: 1,
L0787: 1, L0788: 1,
S0053: 1, S0216: 1,
S0374: 1, S0296: 1,
H0682: 1, H0684: 1,
S0328: 1, S0332: 1,

Gene	Clone	ID	Range	SEQ	Feature	Library data A	Library data B
HPDVQ67	HPDVO67R	1919	1 - 465	4094	Glu-1 to Asp-6, Thr-11 to Glu-20, Val-61 to Gln-66.	H0214: 1, S0404: 1, H0576: 1, L0779: 1, L0780: 1, L0757: 1, L0593: 1, S0011: 1, H0665: 1, H0542: 1, H0423: 1 and S0458: 1.	AR039: 4, AR096: 4, AR052: 2, AR089: 2, AR061: 2, AR060: 2, AR104: 2, AR033: 1, AR055: 1, AR053: 0 L0666: 4, H0253: 2, H0622: 2, H0670: 2, L0743: 2, H0181: 1, L0372: 1, L0773: 1, L0767: 1, L0657: 1, L0665: 1, H0658: 1, L0751: 1, L0749: 1, L0779: 1, L0777: 1, L0758: 1 and L0593: 1.
HPDVQ74	HPDVQ74R	1920	3 - 278	4095	Pro-1 to Ala-9, Arg-17 to Glu-25.		
HPDVQ82	HPDVQ82R	1921	29 - 421	4096			H0658: 2
HPDVT30	HPDVT30R	1922	3 - 284	4097			L0754: 2, H0685: 1, T0010: 1, H0658: 1 and H0423: 1.
HPDVT37	HPDVT37R	1923	1 - 333	4098			
HPDVU28	HPDVU28R	1924	91 - 693	4099	Val-1 to Glu-9, Pro-26 to Gly-31, Tyr-67 to Glu-74,		

HPDVU72	HPDVU72R	1925	3 - 548	4100	Phe-107 to Glu-118, Lys-162 to Arg-173. Ser-1 to His-7, Thr-15 to Arg-29, His-31 to Val-42, Pro-52 to Pro-94, Glu-113 to Ala-131, Lys-161 to Arg-167.	L0777: 6, L0766: 5, L0749: 5, L0601: 4, L0758: 3, H0617: 2, L0769: 2, L0794: 2, L0805: 2, L0657: 2, L0665: 2, H0693: 2, S0028: 2, L0439: 2, L0751: 2, L0747: 2, L0779: 2, L0588: 2, S0114: 1, H0650: 1, H0657: 1, H0402: 1, H0638: 1, S0354: 1, S0360: 1, S0045: 1, S6026: 1, H0550: 1, H0156: 1, H0253: 1, H0421: 1, T0115: 1, H0150: 1, H0014: 1, S0051: 1, S6028: 1, H0688: 1, L0483: 1, H0181: 1, H0163: 1, H0090: 1, H0087: 1, H0560: 1, H0646: 1, S0210: 1, L0763: 1, L0638: 1, L0761: 1, L0784: 1, L0806: 1, L0776: 1, L0655: 1, L0659: 1, L0384: 1, L0789: 1, H0690: 1,

HPDVU88	HPDVU88R	1926	3 - 191	4101	Pro-6 to Ala-16.	H0684: 1, H0658: 1, L0752: 1, L0755: 1, L0731: 1, L0757: 1, L0595: 1, S0276: 1 and H0506: 1.
HPDVV78	HPDVV78R	1927	78 - 644	4102		
HPDWA35	HPDWA35R	1928	3 - 302	4103		H0658: 2
HPDWA88	HPDWA88R	1929	3 - 560	4104		
HPDWB40	HPDWB40R	1930	175 - 306	4105	Arg-1 to Glu-8, Ala-31 to Trp-39.	
HPDWC30	HPDWC30R	1931	231 - 383	4106		
HPDWC75	HPDWC75R	1932	1 - 390	4107	Ala-3 to Ala-10, Pro-15 to Pro-23, Glu-79 to Ser-88, Pro-115 to Arg-122.	
HPDWD44	HPDWD44R	1933	214 - 471	4108		H0271: 13, H0436: 11, L0766: 8, H0581: 5, L0754: 5, S0242: 5, H0556: 4, H0635: 4, L0800: 4, L0662: 4, L0804: 4, L0655: 4, L0659: 4, L0789: 4, L0751: 4, L0757: 4, L0591: 4, S0356: 3, H0069: 3, H0416: 3, L0803: 3, L0747: 3, H0445: 3, H0423: 3, H0422: 3, H0395: 2,

S0134: 2, H0662: 2, H0402: 2, S0354: 2, S0046: 2, S0132: 2, H0587: 2, H0642: 2, H0014: 2, H0179: 2, H0644: 2, H0032: 2, H0090: 2, H0396: 2, H0633: 2, S0422: 2, L0375: 2, L0806: 2, L0607: 2, L0666: 2, L0663: 2, S0052: 2, S0053: 2, S0216: 2, H0521: 2, L0740: 2, L0779: 2, L0777: 2, L0758: 2, L0596: 2, L0599: 2, H0394: 1, S0114: 1, H0657: 1, H0656: 1, S0298: 1, H0306: 1, S0376: 1, H0411: 1, H0607: 1, H0632: 1, H0257: 1, H0492: 1, H0486: 1, L0021: 1, H0318: 1, H0196: 1, H0545: 1, H0457: 1, H0083: 1, S6028: 1, L0483: 1, H0591: 1, H0634: 1, H0623: 1, H0560: 1, H0641: 1, S0344: 1, L0770: 1, L0372: 1,

HPDWD67	1934	220 - 2	4109	Asp-65 to Gly-73.	L0646: 1, L0794: 1, L0774: 1, L0653: 1, L0776: 1, L0657: 1, L0783: 1, L0664: 1, L0665: 1, S0428: 1, S0374: 1, H0689: 1, H0690: 1, H0658: 1, H0672: 1, S0378: 1, H0518: 1, H0576: 1, H0478: 1, S3014: 1, L0749: 1, H0543: 1 and S0458: 1.
HPDWD69	1935	3 - 353	4110	Ser-1 to His-19, Val-86 to Pro-105, Pro-110 to Met-117.	L0588: 18, S0408: 16, S0007: 12, S0444: 11, H0677: 11, H0648: 10, L0769: 9, H0670: 9, S0328: 9, H0651: 8, S0406: 8, H0657: 7, H0341: 7, H0402: 7, H0659: 7, L0748: 7, H0543: 7, T0049: 6, H0251: 6, L0775: 6, H0742: 6, H0422: 6, L0471: 5, H0617: 5, S0440: 5, L0517: 5, S0374: 5, H0658: 5, H0696: 5, L0749: 5, H0423: 5, H0295: 4, S0114: 4, S0134: 4,

| H0656: 4, H0639: 4, |
| H0687: 4, H0606: 4, |
| L0767: 4, L0518: 4, |
| L5286: 4, H0682: 4, |
| L0752: 4, L0759: 4, |
| L0605: 4, L0361: 4, |
| H0685: 3, H0294: 3, |
| H0305: 3, S0356: 3, |
| S0358: 3, S0360: 3, |
| H0722: 3, S0046: 3, |
| L0622: 3, H0486: 3, |
| T0109: 3, T0003: 3, |
| T0067: 3, H0412: 3, |
| S0438: 3, S0422: 3, |
| L0520: 3, L0371: 3, |
| L0770: 3, L0768: 3, |
| L0766: 3, L5574: 3, |
| L0376: 3, L0776: 3, |
| S0126: 3, H0689: 3, |
| L0740: 3, L0758: 3, |
| H0542: 3, H0352: 3, |
| T0002: 2, H0159: 2, |
| S0040: 2, H0713: 2, |
| H0716: 2, S0218: 2, |
| L0785: 2, H0661: 2, |
| H0638: 2, H0125: 2, |
| S0410: 2, H0351: 2, |
| H0586: 2, H0587: 2, |
| H0333: 2, H0492: 2, |
| L0623: 2, S0182: 2, |

H0581: 2, S0049: 2,
H0083: 2, H0031: 2,
H0163: 2, H0551: 2,
H0059: 2, S0210: 2,
L0762: 2, L0764: 2,
L5564: 2, L0653: 2,
L0655: 2, L0634: 2,
L0526: 2, L0783: 2,
L0543: 2, L0368: 2,
H0691: 2, H0547: 2,
H0690: 2, H0684: 2,
S0330: 2, H0710: 2,
L0754: 2, L0747: 2,
L0750: 2, L0777: 2,
L0755: 2, L0590: 2,
L0581: 2, L0599: 2,
L0608: 2, L0604: 2,
L0362: 2, H0653: 2,
H0721: 2, H0686: 1,
S0430: 1, L0760: 1,
S0116: 1, S0212: 1,
H0484: 1, H0663: 1,
H0306: 1, H0458: 1,
H0459: 1, L0534: 1,
L0005: 1, S0442: 1,
S0376: 1, S0045: 1,
S0132: 1, S0476: 1,
H0393: 1, H0640: 1,
H0411: 1, S0278: 1,
H0455: 1, H0592: 1,

T0039: 1, T0060: 1,
H0706: 1, S0010: 1,
T0048: 1, H0318: 1,
H0309: 1, H0596: 1,
T0115: 1, L0040: 1,
H0231: 1, H0546: 1,
H0545: 1, H0009: 1,
H0057: 1, H0018: 1,
S0051: 1, H0510: 1,
H0375: 1, H0109: 1,
S0022: 1, H0328: 1,
H0688: 1, H0039: 1,
T0023: 1, T0006: 1,
H0424: 1, H0628: 1,
H0673: 1, H0708: 1,
S0366: 1, S0036: 1,
H0135: 1, H0040: 1,
H0634: 1, H0063: 1,
H0087: 1, H0116: 1,
H0264: 1, H0413: 1,
H0100: 1, L0564: 1,
H0494: 1, H0561: 1,
H0641: 1, H0646: 1,
S0144: 1, S0344: 1,
L0506: 1, L0761: 1,
L0646: 1, L0771: 1,
L0648: 1, L0521: 1,
L0662: 1, L0387: 1,
L0375: 1, L0806: 1,
L0654: 1, L0661: 1,

HPDWD81	HPDWD81R	1936	1 - 378	4111	Asn-60 to Gly-72, Pro-83 to Trp-114, Ser-117 to Arg-126.	L0807: 1, L0542: 1, L0519: 1, L0530: 1, L0790: 1, L0663: 1, H0144: 1, H0724: 1, H0660: 1, H0666: 1, H0672: 1, H0518: 1, H0521: 1, S0190: 1, H0134: 1, H0187: 1, H0436: 1, S3014: 1, S0028: 1, L0751: 1, L0779: 1, L0757: 1, S0031: 1, H0445: 1, S0436: 1, H0668: 1, S0026: 1, S0276: 1 and S0424: 1.
HPDWE11	HPDWE11R	1937	2 - 121	4112	Arg-1 to Gln-9.	
HPDWE64	HPDWE64R	1938	248 - 559	4113		H0575: 2, L0002: 1, S0336: 1, H0487: 1, L0762: 1, L0637: 1, L0805: 1, L0659: 1, H0658: 1, L0777: 1 and L0731: 1.
HPDWF93	HPDWF93R	1939	1 - 507	4114	Pro-3 to Pro-12.	
HPDWG51	HPDWG51R	1940	169 - 342	4115	Phe-1 to Cys-13, Gly-28 to Ser-35.	H0038: 5, H0616: 3, L0752: 3, S0418: 2, H0620: 2, H0547: 2, L0602: 2, H0521: 2,

HPDWL56	HPDWL56R	1941	2 - 388	4116	L0751: 2, S0212: 1, S0282: 1, H0638: 1, S0358: 1, S0007: 1, H0261: 1, H0575: 1, S0346: 1, H0596: 1, L0471: 1, L0163: 1, H0071: 1, H0510: 1, S0003: 1, H0488: 1, S0038: 1, H0509: 1, H0649: 1, S0144: 1, L0803: 1, S0374: 1, H0519: 1, S0126: 1, H0658: 1, H0518: 1, S0013: 1, S0044: 1, L0743: 1, L0744: 1, L0748: 1, L0759: 1, L0599: 1 and S0424: 1.
HPDWL70	HPDWL70R	1942	174 - 308	4117	
HPDWN46	HPDWN46R	1943	1 - 585	4118	Arg-21 to Gly-32, Pro-63 to Ser-79, Thr-92 to Pro-100, Glu-107 to Glu-126, Glu-133 to Ser-146, Ser-148 to Thr-157.

H0556: 30, H0659: 9, L0439: 9, S0406: 8, H0494: 7, S0360: 6, L0771: 6, H0634: 5, S0206: 5, L0777: 5, H0265: 4, H0657: 4, S0328: 4, S0152: 4, S0146: 4, L0748: 4, L0751: 4, L0749: 4, H0423: 4, S0040: 3, H0497: 3, H0623: 3,

H0529: 3, L0761: 3,
L0665: 3, H0144: 3,
H0555: 3, S0026: 3,
H0656: 2, H0341: 2,
S0212: 2, S0418: 2,
S0356: 2, H0675: 2,
S0046: 2, H0411: 2,
H0586: 2, H0581: 2,
H0615: 2, H0553: 2,
H0591: 2, S0440: 2,
S0422: 2, L0772: 2,
L0438: 2, H0711: 2,
H0521: 2, S0404: 2,
S3014: 2, L0743: 2,
L0740: 2, H0170: 1,
H0171: 1, H0159: 1,
H0686: 1, S0342: 1,
H0294: 1, S0114: 1,
T0049: 1, S0116: 1,
H0661: 1, H0458: 1,
S0420: 1, S0376: 1,
S0444: 1, H0437: 1,
S6022: 1, H0550: 1,
H0362: 1, H0642: 1,
H0574: 1, H0559: 1,
S0280: 1, H0590: 1,
H0004: 1, H0363: 1,
H0263: 1, H0596: 1,
H0081: 1, H0014: 1,
H0688: 1, H0628: 1,

HPDWN65	HPDWN65R	1944	1 - 246	4119		L0055: 1, H0673: 1, H0068: 1, H0551: 1, T0069: 1, L0435: 1, H0625: 1, S0002: 1, L0369: 1, L0637: 1, L0764: 1, L0774: 1, L0775: 1, L0375: 1, L0378: 1, L0806: 1, L0805: 1, L0655: 1, L0606: 1, L0657: 1, L0783: 1, L0382: 1, L0792: 1, H0701: 1, S0374: 1, H0519: 1, S0126: 1, H0658: 1, H0670: 1, H0648: 1, S0390: 1, S0037: 1, L0744: 1, L0747: 1, L0779: 1, L0731: 1, L0759: 1, H0445: 1, S0434: 1, L0584: 1, H0667: 1, S0194: 1, H0542: 1, H0543: 1, H0422: 1 and S0424: 1.
HPDWN69	HPDWN69R	1945	2 - 607	4120	Gly-2 to Pro-9, Ser-24 to Thr-33.	
HPDWO08	HPDWO08R	1946	351 - 704	4121		L0766: 5, H0551: 3, L0769: 3, L0639: 3, H0327: 2, S0002: 2, L0764: 2, L0659: 2,

HPDWO029	HPDWO29R	1947	386 - 568			L0663: 2, L0777: 2, S0356: 1, S0360: 1, S0410: 1, L0717: 1, H0261: 1, H0550: 1, S0222: 1, T0109: 1, H0575: 1, T0048: 1, H0052: 1, S0051: 1, L0455: 1, H0124: 1, H0135: 1, H0063: 1, H0087: 1, L0763: 1, L0770: 1, L0796: 1, L0761: 1, L0643: 1, L0374: 1, L0771: 1, L0626: 1, L0635: 1, L0542: 1, L0809: 1, L0665: 1, L0565: 1, H0547: 1, H0658: 1, H0522: 1, L0756: 1, L0758: 1 and L0366: 1.
HPDWO050	HPDWO50R	1948	27 - 455	4122	His-1 to Gly-13.	
HPDWO061	HPDWO61R	1949	2 - 358	4123	Arg-90 to Lys-95, Pro-121 to Trp-129.	
HPDWO082	HPDWO82R	1950	1 - 342	4124		
				4125	Ala-3 to Glu-8.	L0770: 12, H0657: 10, L0659: 9, L0776: 8, H0648: 8, L0755: 8, L0774: 7, S0410: 6, H0494: 6, L0769: 6, L0750: 6, S0408: 5, S0440: 5, L0775: 5,

S0376: 4, S0360: 4, L0748: 4, L0777: 4, L0752: 4, L0759: 4, H0341: 3, S0358: 3, H0616: 3, L0766: 3, L0740: 3, L0747: 3, L0731: 3, L0758: 3, S0026: 3, H0170: 2, H0556: 2, H0685: 2, H0656: 2, S0420: 2, S0444: 2, T0109: 2, H0156: 2, H0545: 2, L0471: 2, H0031: 2, H0040: 2, H0560: 2, L0065: 2, S0438: 2, L0763: 2, L0772: 2, L0764: 2, L0518: 2, L0783: 2, H0144: 2, S0374: 2, H0520: 2, H0658: 2, H0670: 2, L0753: 2, H0445: 2, S0434: 2, H0665: 2, S0194: 2, S0134: 1, S0116: 1, H0663: 1, L0481: 1, H0638: 1, H0125: 1, S0442: 1, H0351: 1, H0369: 1, H0550: 1, H0431: 1, H0331: 1, H0069: 1, S0346: 1, T0048: 1,

| HPDWS61 | HPDWS61R | 1951 | 73 - 321 | 4126 | Asp-15 to Val-20. | S0182: 1, S0049: 1, H0563: 1, H0081: 1, H0620: 1, H0014: 1, H0373: 1, H0083: 1, H0375: 1, H0428: 1, H0708: 1, H0634: 1, H0412: 1, H0413: 1, L0475: 1, H0386: 1, L0598: 1, H0529: 1, L0520: 1, L0762: 1, L0371: 1, L0638: 1, L0373: 1, L0646: 1, L0773: 1, L0521: 1, L0662: 1, L0805: 1, L0655: 1, L0517: 1, L0540: 1, L0542: 1, L0526: 1, L0809: 1, L0545: 1, L0791: 1, L0663: 1, L0665: 1, H0691: 1, H0547: 1, H0690: 1, H0435: 1, H0660: 1, H0651: 1, S0380: 1, S0406: 1, L0749: 1, L0780: 1, H0668: 1, H0653: 1, S0242: 1, S0276: 1, H0542: 1, H0422: 1 and H0506: 1. H0617: 8, S0404: 8, H0484: 7, H0550: 7, |

L0758: 5, H0606: 4,
H0658: 4, H0696: 4,
S0276: 4, H0295: 3,
S0280: 3, H0150: 3,
H0188: 3, H0163: 3,
L0769: 3, S0408: 2,
L0622: 2, L0623: 2,
T0060: 2, T0006: 2,
H0181: 2, H0673: 2,
H0494: 2, L0764: 2,
L0775: 2, L0776: 2,
L0514: 2, L0510: 2,
L0511: 2, L0512: 2,
L0540: 2, L0783: 2,
L0809: 2, L0528: 2,
H0683: 2, H0694: 2,
L0744: 2, L0747: 2,
S0031: 2, S6024: 1,
H0294: 1, H0381: 1,
H0483: 1, H0664: 1,
H0662: 1, S0356: 1,
S0442: 1, S0358: 1,
S0376: 1, H0411: 1,
S6022: 1, H0586: 1,
H0333: 1, H0036: 1,
H0590: 1, H0309: 1,
H0044: 1, H0121: 1,
H0081: 1, H0014: 1,
S0388: 1, S0051: 1,
H0252: 1, H0622: 1,

HPDWT55	HPDWT55R	1952	3 - 503	4127	Ala-37 to Ser-42, Gly-127 to Thr-134.	L0774: 3, H0658: 3, L0803: 2, L0439: 2, H0619: 1, H0586:-1, H0309: 1, S0366: 1, L0659: 1 and S0052: 1.
HPDWT56	HPDWT56R	1953	12 - 746	4128	Arg-4 to Gly-17, Pro-39 to Lys-46, His-96 to Arg-102.	
HPDWU47	HPDWU47R	1954	1 - 705	4129		
HPDWU55	HPDWU55R	1955	1 - 702	4130	Leu-4 to Phe-9, Gly-29 to Glu-39.	L0748: 18, L0755: 7, H0251: 6, L0777: 6, H0658: 4, L0754: 4, L0779: 4, S0360: 3, S0276: 3, H0674: 2, L0767: 2, L0766: 2.

L0483: 1, H0033: 1, H0111: 1, H0032: 1, H0166: 1, S0438: 1, L0762: 1, L0504: 1, L0381: 1, L0803: 1, L0375: 1, L0376: 1, L0509: 1, L0515: 1, L0518: 1, L0782: 1, L0544: 1, L0541: 1, L0543: 1, H0693: 1, S0126: 1, H0651: 1, L0743: 1, L0751: 1, L0777: 1, L0753: 1, H0445: 1, H0667: 1, S0194: 1 and S0398: 1.

| HPDWU60 | HPDWU60R | 1956 | 2 - 568 | 4131 | Pro-50 to Trp-55. | L0775: 2, L0809: 2, H0689: 2, L0757: 2, S0358: 1, S0046: 1, H0013: 1, H0427: 1, H0546: 1, H0046: 1, H0123: 1, H0252: 1, H0031: 1, H0617: 1, L0769: 1, L0773: 1, L0662: 1, L0649: 1, L0774: 1, L0375: 1, L0776: 1, L0636: 1, L0783: 1, L0382: 1, L0666: 1, L0663: 1, L0665: 1, H0144: 1, H0670: 1, S0328: 1, H0696: 1, S0027: 1, L0758: 1, L0759: 1 and S0434: 1. | L0766: 7, L0748: 6, L0771: 5, S0422: 3, H0519: 3, L0749: 3, L0756: 3, H0735: 2, H0641: 2, H0529: 2, L0659: 2, S0374: 2, L0758: 2, H0484: 1, S0442: 1, S0358: 1, S0410: 1, S0007: 1, H0632: 1, L0483: 1, H0606: 1, H0268: 1, S0150: 1, L0763: 1, |

HPDWU63	HPDWU63R	1957	2 - 370	4132	Ala-51 to Tyr-56, Ala-92 to Ser-101, Ser-118 to Ile-123.	L0637: 1, L0764: 1, L0768: 1, L0774: 1, L0653: 1, L0809: 1, L0666: 1, H0144: 1, L0438: 1, H0520: 1, H0547: 1, H0658: 1, S0328: 1, H0539: 1, S0406: 1, S0027: 1, L0744: 1, L0751: 1, L0754: 1, L0750: 1, L0777: 1, L0592: 1, L0608: 1, L0593: 1, H0543: 1 and H0422: 1.
HPFMP90	HPFMP90R	1958	38 - 163	4133	Asp-14 to Ala-19.	L0740: 3, L0758: 3, S0242: 3, L0598: 2, L0766: 2, L0803: 2, H0435: 2, H0648: 2, L0748: 2, L0756: 2, L0731: 2, L0757: 2, H0170: 1, S0300: 1, H0431: 1, H0046: 1, H0687: 1, S0003: 1, H0674: 1, H0616: 1, T0067: 1, UNKWN: 1, L0770: 1, L0637: 1, L0373: 1, L0765: 1, L0794: 1, L0804: 1.

HPIAL09	HPIAL09R	1959	209 - 394	4134	Phe-5 to Leu-11, Ser-20 to Arg-45.	L0775: 1, L0784: 1, L0805: 1, L0776: 1, L0666: 1, L0664: 1, L0665: 1, L0438: 1, H0689: 1, L0439: 1, L0754: 1, L0750: 1, L0759: 1 and L0480: 1.
HSAMY44	HSAMY44R	1960	3 - 182	4135	Gly-4 to Asn-9.	
HSAYW59	HSAYW59R	1961	2 - 364	4136	Pro-11 to Lys-16, Val-18 to Arg-45, Asn-56 to Glu-67.	H0255: 2, S0114: 1, L0510: 1 and S0216: 1.
HSCPJ17	HSCPJ17R	1962	2 - 655	4137		
HSDIA22	HSDIA22R	1963	114 - 212	4138		
HSDII65	HSDII65R	1964	239 - 412	4139		L0809: 5, L0666: 4, L0747: 3, L0750: 3, L0764: 2, L0803: 2, L0774: 2, L0651: 2, L0663: 2, L0664: 2, L0748: 2, L0756: 2, L0779: 2, L0755: 2, H0669: 1, H0392: 1, H0600: 1, S0346: 1, H0494: 1, H0646: 1, L0763: 1, L0371: 1, L0372: 1, L0775: 1, L0659: 1, L0518: 1, L0788: 1, L0665: 1, S0330: 1, S0392: 1,

					L0749: 1, L0752: 1, L0757: 1, S0260: 1, L0596: 1, L0591: 1 and L0608: 1.
HSDIX73	HSDIX73R	1965	2 - 187	4140	Ser-20 to Ser-31.
HSDJI25	HSDJI25R	1966	2 - 169	4141	Trp-1 to Ala-10.
HSDZE12	HSDZE12R	1967	40 - 141	4142	AR033: 4, AR089: 3, AR096: 3, AR060: 3, AR061: 2, AR053: 2, AR055: 1, AR039: 0, AR052: 0 L0774: 3, L0752: 3, L0592: 3, H0625: 2, L0662: 2, L0747: 2, L0777: 2, H0580: 1, L0717: 1, H0455: 1, S0280: 1, H0251: 1, H0633: 1, L0773: 1, L0768: 1, L0794: 1, L0803: 1, L0775: 1, L0653: 1, L0776: 1, L0661: 1, L0659: 1, L0526: 1, L0809: 1, L0665: 1, H0658: 1, H0696: 1, L0755: 1, L0731: 1, L0757: 1, L0759: 1 and H0352: 1.
HSDZJ21	HSDZJ21R	1968	40 - 180	4143	Lys-18 to Lys-30.
HSIFF84	HSIFF84R	1969	3 - 80	4144	Pro-14 to Lys-26.
HSKJR50	HSKJR50R	1970	2 - 400	4145	Leu-117 to Trp-123.

HSLHT27	HSLHT27R	1971	2 - 196	4146		
HSODB16	HSODB16R	1972	1 - 174	4147	Asn-45 to Ser-54.	H0596: 5, S0388: 4, H0598: 4, H0595: 4, S0412: 4, S0282: 3, S0280: 2, H0594: 2, H0366: 2, H0542: 2, H0395: 1, H0589: 1, S0356: 1, H0411: 1, H0592: 1, H0559: 1, H0427: 1, S0050: 1, H0373: 1, S0344: 1, H0436: 1, S0260: 1, S0194: 1 and H0506: 1.
HSPSB24	HSPSB24R	1973	1 - 612	4148	Glu-77 to Arg-82, Pro-132 to Met-139.	
HSPSB70	HSPSB70R	1974	3 - 539	4149	Ile-1 to Ala-11, Asp-67 to Leu-78, Asn-81 to Ser-90, Pro-96 to Glu-110, Ala-164 to Ala-171, Gln-173 to Lys-179.	
HSPSB74	HSPSB74R	1975	1 - 162	4150	Ala-1 to Cys-21, Trp-23 to Ser-33.	
HSPSB80	HSPSB80R	1976	2 - 631	4151		
HSPSC30	HSPSC30R	1977	1 - 342	4152	Leu-43 to Thr-58.	
HSPSE86	HSPSE86R	1978	3 - 293	4153	Ser-41 to Ile-50, Gln-55 to Glu-65, Cys-69 to Asp-78.	L0755: 5, L0748: 4, H0616: 3, L0769: 3, L0752: 3, L0731: 3, L0757: 3, S0356: 2, S0408: 2, S0046: 2,

L0770: 2, L0771: 2,
L0776: 2, L0526: 2,
L0747: 2, L0750: 2,
L0756: 2, L0758: 2,
L0759: 2, L0588: 2,
H0170: 1, L0459: 1,
H0484: 1, S0358: 1,
S0360: 1, H0637: 1,
S0045: 1, S0132: 1,
H0393: 1, S0278: 1,
T0039: 1, H0427: 1,
H0318: 1, S0049: 1,
H0009: 1, H0081: 1,
T0003: 1, H0051: 1,
H0083: 1, S0003: 1,
H0622: 1, H0708: 1,
H0316: 1, H0038: 1,
H0063: 1, H0412: 1,
S0038: 1, S0150: 1,
H0529: 1, L0762: 1,
L0763: 1, L0646: 1,
L0644: 1, L0768: 1,
L0766: 1, L0774: 1,
L0775: 1, L0661: 1,
L0657: 1, L0782: 1,
L0788: 1, L0666: 1,
L0665: 1, H0683: 1,
H0660: 1, S0378: 1,
S0406: 1, L0777: 1,
H0445: 1 and H0542: 1.

| HSPSG03 | HSPSG03R | 1979 | 3 - 191 | 4154 | Leu-41 to Asp-48. | H0124: 19, H0052: 10, L0751: 7, L0747: 7, H0255: 6, H0441: 6, H0556: 5, S0222: 5, H0265: 4, S0360: 4, H0620: 4, L0655: 4, H0144: 4, L0439: 4, L0596: 4, L0601: 4, S0132: 3, H0575: 3, H0123: 3, H0012: 3, H0024: 3, H0617: 3, H0087: 3, H0529: 3, L0764: 3, L0662: 3, L0766: 3, L0663: 3, L0565: 3, L0438: 3, H0660: 3, L0743: 3, L0740: 3, H0445: 3, H0218: 2, H0585: 2, S0418: 2, S0444: 2, S0408: 2, H0208: 2, S0278: 2, H0261: 2, H0333: 2, H0706: 2, H0581: 2, S0049: 2, H0009: 2, L0471: 2, S0051: 2, T0010: 2, H0083: 2, H0594: 2, T0006: 2, H0628: 2, H0038: 2, S0440: 2, S0142: 2, S0344: 2, L5565: 2, L5566: 2, |

L0776: 2, L0657: 2, L0659: 2, L0666: 2, L0665: 2, H0683: 2, H0658: 2, H0670: 2, S0146: 2, L0748: 2, L0756: 2, L0752: 2, L0755: 2, L0731: 2, L0758: 2, L0587: 2, L0361: 2, H0624: 1, T0002: 1, H0141: 1, H0717: 1, S0402: 1, H0295: 1, S0114: 1, L0785: 1, H0341: 1, S0212: 1, S0282: 1, H0722: 1, S0007: 1, S0046: 1, S0476: 1, H0619: 1, S0300: 1, H0351: 1, H0411: 1, H0392: 1, H0574: 1, H0492: 1, L0622: 1, L0623: 1, H0244: 1, H0250: 1, H0156: 1, H0618: 1, T0048: 1, H0434: 1, H0309: 1, H0597: 1, H0231: 1, H0544: 1, H0546: 1, H0046: 1, H0150: 1, H0050: 1, S0050: 1, H0016: 1, H0373: 1, H0051: 1, H0071: 1,

S6028: 1, H0271: 1,
H0687: 1, S0022: 1,
H0252: 1, H0615: 1,
H0039: 1, H0033: 1,
H0604: 1, H0424: 1,
H0213: 1, L0055: 1,
H0674: 1, H0068: 1,
H0135: 1, H0040: 1,
H0551: 1, H0412: 1,
H0059: 1, H0100: 1,
L0351: 1, L0435: 1,
H0494: 1, S0306: 1,
S0150: 1, H0647: 1,
S0210: 1, S0002: 1,
L0369: 1, L0762: 1,
L0640: 1, L0371: 1,
L0770: 1, L0769: 1,
L0638: 1, L0637: 1,
L5575: 1, L0772: 1,
L0646: 1, L0641: 1,
L0374: 1, L0648: 1,
L0767: 1, L0768: 1,
L0774: 1, L0653: 1,
L0493: 1, L0559: 1,
L0635: 1, L0783: 1,
L0519: 1, L0545: 1,
L0541: 1, L0543: 1,
L0788: 1, L4559: 1,
S0053: 1, L0352: 1,
H0520: 1, H0547: 1,

HSPSG13	HSPSG13R	1980	2 - 784	4155	H0690: 1, H0682: 1, H0435: 1, H0539: 1, H0521: 1, S0404: 1, S3012: 1, S0037: 1, S3014: 1, S0028: 1, S0206: 1, L0742: 1, L0750: 1, L0779: 1, L0753: 1, L0757: 1, L0593: 1, S0276: 1, H0423: 1, H0506: 1, H0008: 1 and H0293: 1.
HSPSG42	HSPSG42R	1981	3 - 596	4156	Glu-6 to Thr-11, His-31 to Asn-36, Thr-68 to Ile-76, Met-80 to Arg-89, Glu-123 to Gln-132, Arg-140 to Leu-147.
HSPSG50	HSPSG50R	1982	123 - 608	4157	Glu-1 to Ile-6.
HSPSG89	HSPSG89R	1983	94 - 651	4158	Pro-36 to Lys-44, Ile-46 to Ser-52, Val-82 to Gln-89, Gly-99 to Ala-104, Tyr-165 to Leu-171.
HSPSH39	HSPSH39R	1984	11 - 793	4159	
HSPSH41	HSPSH41R	1985	3 - 431	4160	
HSPSH49	HSPSH49R	1986	3 - 539	4161	
HSPSI65	HSPSI65R	1987	3 - 734	4162	Asp-7 to Lys-15, His-142 to Glu-156,

HSPSJ71	HSPSJ71R	1988	2 - 310	4163	Glu-181 to Phe-190.
					H0124: 19, H0052: 10, L0751: 7, L0747: 7, H0255: 6, H0441: 6, H0556: 5, S0222: 5, H0265: 4, S0360: 4, H0620: 4, L0655: 4, H0144: 4, L0439: 4, L0596: 4, L0601: 4, S0132: 3, H0575: 3, H0123: 3, H0012: 3, H0024: 3, H0617: 3, H0087: 3, H0529: 3, L0764: 3, L0662: 3, L0766: 3, L0663: 3, L0565: 3, L0438: 3, H0660: 3, L0743: 3, L0740: 3, H0445: 3, H0218: 2, H0585: 2, S0418: 2, S0444: 2, S0408: 2, H0208: 2, S0278: 2, H0261: 2, H0333: 2, H0706: 2, H0581: 2, S0049: 2, H0009: 2, L0471: 2, S0051: 2, T0010: 2, H0083: 2, H0594: 2, T0006: 2, H0628: 2, H0038: 2, S0440: 2, S0142: 2, S0344: 2,

L5565: 2, L5566: 2, L0776: 2, L0657: 2, L0659: 2, L0666: 2, L0665: 2, H0683: 2, H0658: 2, H0670: 2, S0146: 2, L0748: 2, L0756: 2, L0752: 2, L0755: 2, L0731: 2, L0758: 2, L0587: 2, L0361: 2, H0624: 1, T0002: 1, H0141: 1, H0717: 1, S0402: 1, H0295: 1, S0114: 1, L0785: 1, H0341: 1, S0212: 1, S0282: 1, H0722: 1, S0007: 1, S0046: 1, S0476: 1, H0619: 1, S0300: 1, H0351: 1, H0411: 1, H0392: 1, H0574: 1, H0492: 1, L0622: 1, L0623: 1, H0244: 1, H0250: 1, H0156: 1, H0618: 1, T0048: 1, H0434: 1, H0309: 1, H0597: 1, H0231: 1, H0544: 1, H0546: 1, H0046: 1, H0150: 1, H0050: 1, S0050: 1, H0016: 1, H0373: 1,

H0051: 1, H0071: 1,
S6028: 1, H0271: 1,
H0687: 1, S0022: 1,
H0252: 1, H0615: 1,
H0039: 1, H0033: 1,
H0604: 1, H0424: 1,
H0213: 1, L0055: 1,
H0674: 1, H0068: 1,
H0135: 1, H0040: 1,
H0551: 1, H0412: 1,
H0059: 1, H0100: 1,
L0351: 1, L0435: 1,
H0494: 1, S0306: 1,
S0150: 1, H0647: 1,
S0210: 1, S0002: 1,
L0369: 1, L0762: 1,
L0640: 1, L0371: 1,
L0770: 1, L0769: 1,
L0638: 1, L0637: 1,
L5575: 1, L0772: 1,
L0646: 1, L0641: 1,
L0374: 1, L0648: 1,
L0767: 1, L0768: 1,
L0774: 1, L0653: 1,
L0493: 1, L0559: 1,
L0635: 1, L0783: 1,
L0519: 1, L0545: 1,
L0541: 1, L0543: 1,
L0788: 1, L4559: 1,
S0053: 1, L0352: 1,

HSPSJ72	HSPSJ72R	1989	1 - 444	4164	
					H0520: 1, H0547: 1,
					H0690: 1, H0682: 1,
					H0435: 1, H0539: 1,
					H0521: 1, S0404: 1,
					S3012: 1, S0037: 1,
					S3014: 1, S0028: 1,
					S0206: 1, L0742: 1,
					L0750: 1, L0779: 1,
					L0753: 1, L0757: 1,
					L0593: 1, S0276: 1,
					H0423: 1, H0506: 1,
					H0008: 1 and H0293: 1.
					H0617: 14, L0665: 14,
					L0657: 11, H0682: 11,
					H0521: 10, S0360: 8,
					H0423: 7, H0657: 5,
					H0620: 5, H0687: 5,
					L0664: 5, H0547: 5,
					S0406: 5, S0376: 4,
					H0059: 4, H0641: 4,
					S0422: 4, L0648: 4,
					L0768: 4, H0658: 4,
					H0670: 4, H0666: 4,
					H0522: 4, H0584: 3,
					H0713: 3, H0716: 3,
					H0341: 3, H0638: 3,
					H0618: 3, H0039: 3,
					H0087: 3, H0509: 3,
					L0662: 3, L0775: 3,
					L0659: 3, H0689: 3,

H0435: 3, S0328: 3,
H0445: 3, S0434: 3,
L0581: 3, L0361: 3,
H0585: 2, H0717: 2,
T0049: 2, H0730: 2,
S0476: 2, S0278: 2,
H0550: 2, H0586: 2,
H0559: 2, H0486: 2,
H0575: 2, H0253: 2,
H0581: 2, H0622: 2,
H0606: 2, H0625: 2,
H0649: 2, L0667: 2,
L0382: 2, H0684: 2,
L0743: 2, L0751: 2,
L0599: 2, S0026: 2,
H0543: 2, S0424: 2,
H0171: 1, H0556: 1,
S0040: 1, H0740: 1,
H0650: 1, H0254: 1,
H0255: 1, H0661: 1,
H0663: 1, H0664: 1,
H0125: 1, S0356: 1,
S0442: 1, S0354: 1,
S0358: 1, S0408: 1,
H0722: 1, S0132: 1,
S6026: 1, H0587: 1,
L0623: 1, H0250: 1,
L0021: 1, H0599: 1,
T0082: 1, H0318: 1,
H0327: 1, H0530: 1,

H0150: 1, L0471: 1, H0012: 1, H0023: 1, H0024: 1, H0014: 1, S0388: 1, H0071: 1, H0107: 1, H0275: 1, H0354: 1, H0510: 1, H0247: 1, H0271: 1, H0286: 1, H0615: 1, H0688: 1, H0553: 1, H0181: 1, H0124: 1, H0316: 1, H0477: 1, H0100: 1, H0561: 1, S0450: 1, S0438: 1, H0529: 1, L0371: 1, L0769: 1, L5575: 1, L0761: 1, L0772: 1, L0646: 1, L0645: 1, L0766: 1, L0774: 1, L0375: 1, L0651: 1, L0523: 1, L0806: 1, L0658: 1, L0559: 1, L0783: 1, L0384: 1, L0793: 1, H0698: 1, H0726: 1, H0519: 1, H0683: 1, H0660: 1, S0330: 1, S0454: 1, H0696: 1, S0146: 1, H0576: 1, H0727: 1, H0732: 1, S0027: 1, S0031: 1, L0596: 1,

HSPSQ22	HSPSQ22R	1990	1 - 339	4165	Pro-6 to Gly-13, Pro-23 to Lys-32, Lys-94 to Ala-112.	H0542: 1, H0422: 1, S0456: 1 and H0352: 1.
HSPSQ57	HSPSQ57R	1991	1 - 327	4166	Glu-17 to Asp-32.	
HSPSY67	HSPSY67R	1992	2 - 442	4167		H0683: 242, S0358: 3, L0745: 3, H0656: 2, H0484: 2, S0354: 2, H0370: 2, H0427: 2, T0010: 2, H0039: 2, H0521: 2, S0001: 1, H0619: 1, H0592: 1, H0042: 1, H0618: 1, H0327: 1, H0024: 1, H0266: 1, H0288: 1, H0135: 1, H0551: 1, H0623: 1, H0130: 1, S0210: 1, L0774: 1, L0654: 1, L0438: 1, H0593: 1, H0539: 1, L0439: 1, H0707: 1, H0422: 1 and H0293: 1.
HSPSZ69	HSPSZ69R	1993	2 - 406	4168		
HSPTA57	HSPTA57R	1994	244 - 438	4169		
HSPTN57	HSPTN57R	1995	2 - 61	4170	Ala-1 to Lys-9, Val-11 to Trp-17.	
HSSDM17	HSSDM17R	1996	46 - 210	4171		
HSWBF04	HSWBF04R	1997	36 - 302	4172	Ser-1 to Thr-8,	

HSWBP42	HSWBP42R	1998	188 - 364	4173	Glu-17 to Ala-32, Arg-39 to Trp-47.	Met-9 to Arg-14, Leu-23 to Lys-29, Lys-50 to Asn-56.	
HSXEM65	HSXEM65R	1999	84 - 308	4174		Ser-7 to Gly-12, Pro-23 to Pro-40, Ala-49 to Val-54.	L0803: 10, L0794: 4, L0779: 4, L0789: 2, H0648: 2, S0442: 1, S0045: 1, S0036: 1, L0520: 1, L0763: 1, L0769: 1, L0800: 1, L0644: 1, L0764: 1, L0773: 1, L0767: 1, L0804: 1, L0774: 1, L0805: 1, L0517: 1, H0659: 1, L0777: 1 and L0758: 1.
HTGAR42	HTGAR42R	2000	136 - 297	4175		Ser-4 to Thr-10, Leu-42 to Pro-51.	H0615: 2 and S0134: 1.
HTLCU84	HTLCU84R	2001	131 - 406	4176		Asp-55 to Val-63, Cys-80 to Arg-92.	
HTSHG06	HTSHG06R	2002	107 - 295	4177			
HTTDP76	HTTDP76R	2003	169 - 423	4178		Pro-8 to Trp-14, Arg-20 to Ser-27, Glu-52 to Glu-60.	
HUFCQ37	HUFCQ37R	2004	94 - 366	4179		Pro-26 to Gly-39, Pro-68 to Arg-75.	L0439: 15, H0052: 11, S0007: 9, L0438: 6, L0731: 6, L0779: 5, L0754: 4, H0550: 3, L0769: 3, S0126: 3,

L0743: 3, H0194: 2, H0687: 2, H0623: 2, L0768: 2, L0776: 2, L0659: 2, L0666: 2, L0663: 2, H0689: 2, S0330: 2, L0748: 2, L0786: 2, L0777: 2, L0752: 2, L0758: 2, L0608: 2, H0352: 2, H0662: 1, S0356: 1, S0354: 1, S0444: 1, S0045: 1, S0476: 1, H0441: 1, H0431: 1, H0333: 1, H0642: 1, H0575: 1, H0590: 1, T0048: 1, H0150: 1, H0024: 1, S0050: 1, S0388: 1, H0252: 1, H0039: 1, H0135: 1, H0038: 1, H0264: 1, H0494: 1, L0770: 1, L0372: 1, L0646: 1, L0521: 1, L0794: 1, L0803: 1, L0775: 1, L0653: 1, L0657: 1, L0809: 1, L0792: 1, L0664: 1, H0144: 1, L0352: 1, H0519: 1, H0593: 1, H0658: 1, H0672: 1, H0539: 1,

1400

						S0406: 1, L0749: 1, L0751: 1, L0756: 1, L0753: 1 and H0506: 1.
HULAP70	HULAP70R	2005	2 - 349	4180	Arg-8 to Arg-28.	
HUSGA11	HUSGA11R	2006	19 - 390	4181	Arg-11 to Arg-18, Ser-42 to Arg-52, Met-62 to Pro-73, Pro-102 to Gly-115.	
HUSIL88	HUSIL88R	2007	187 - 288	4182		
HUUCH08	HUUCH08R A	2008	351 - 620	4183		
HUVFA39	HUVFA39R	2009	1 - 462	4184	Arg-2 to Gly-12, Arg-28 to Gly-41, Gly-48 to Val-68, Lys-94 to Arg-118.	
HVCAA31	HVCAA31R	2010	94 - 618	4185	Met-4 to Thr-22, Asp-45 to Gly-50, Gly-65 to Asp-70, Lys-96 to Asp-104, Ile-121 to Leu-126, Met-133 to Glu-144, Ala-149 to Asn-156.	
HVCAA37	HVCAA37R	2011	208 - 717	4186	Ile-36 to Glu-41, Glu-55 to Lys-63, Lys-68 to Gln-81, Pro-84 to Lys-90, Pro-108 to Ser-119.	
HVCAA68	HVCAA68R	2012	2 - 373	4187	Pro-22 to Pro-28, Glu-109 to Arg-118.	

HVCAA94	HVCAA94R	2013	1 - 462	4188	
HVCAB02	HVCAB02R	2014	2 - 649	4189	H0666: 696, H0660: 11, L0666: 7, H0617: 4, L0664: 4, H0549: 3, H0620: 3, H0181: 3, H0593: 3, H0684: 3, H0484: 2, H0619: 2, H0051: 2, H0606: 2, H0670: 2, L0748: 2, L0439: 2, S0040: 1, H0483: 1, H0255: 1, H0662: 1, S0007: 1, H0486: 1, H0052: 1, H0597: 1, H0046: 1, H0009: 1, H0012: 1, H0059: 1, T0041: 1, H0517: 1, L0770: 1, L0764: 1, L0803: 1, L0783: 1, L0809: 1, H0435: 1, H0658: 1, H0539: 1, H0521: 1, H0696: 1 and S0434: 1.
HVCAB03	HVCAB03R	2015	353 - 664	4190	Arg-1 to Gln-18, Asp-52 to Leu-57, Asp-67 to Lys-74, Asp-85 to Ala-92.
HVCAB18	HVCAB18R	2016	3 - 758	4191	
HVCAB44	HVCAB44R	2017	3 - 224	4192	L0769: 7, L0747: 7, L0777: 7, L0752: 7, L0665: 6, L0770: 5,

L0766: 5, L0779: 5,
L0771: 4, L0666: 4,
L0439: 4, L0751: 4,
H0052: 3, H0135: 3,
L0762: 3, L0775: 3,
L0806: 3, L0809: 3,
L0647: 3, S0404: 3,
L0743: 3, L0749: 3,
L0731: 3, S0360: 2,
H0083: 2, H0412: 2,
L0761: 2, L0764: 2,
L0662: 2, L0653: 2,
L0783: 2, L0532: 2,
L0664: 2, L0748: 2,
L0750: 2, L0758: 2,
L0759: 2, H0543: 2,
H0265: 1, S0218: 1,
H0657: 1, H0254: 1,
H0661: 1, H0402: 1,
S0354: 1, S0046: 1,
H0619: 1, S6026: 1,
L0717: 1, H0409: 1,
H0587: 1, H0486: 1,
H0013: 1, H0069: 1,
H0156: 1, H0599: 1,
L0022: 1, H0575: 1,
H0597: 1, H0544: 1,
H0546: 1, H0150: 1,
H0057: 1, H0014: 1,
S0003: 1, H0252: 1,

HVCAB52	HVCAB52R	2018	4 - 612	4193	H0615: 1, H0030: 1, H0644: 1, H0617: 1, S0364: 1, H0316: 1, H0598: 1, S0036: 1, H0063: 1, H0646: 1, S0426: 1, L0369: 1, L0772: 1, L0773: 1, L0767: 1, L0774: 1, L0375: 1, L0378: 1, L0655: 1, L0656: 1, L0790: 1, L0663: 1, H0520: 1, H0689: 1, H0670: 1, H0660: 1, H0666: 1, S0152: 1, H0521: 1, H0436: 1, S0206: 1, L0744: 1, L0786: 1, L0755: 1, L0587: 1, L0362: 1, H0422: 1, S0456: 1 and L0600: 1.
HVCAB57	HVCAB57R	2019	1 - 357	4194	
HVCAB88	HVCAB88R	2020	83 - 739	4195	Lys-6 to Thr-11, Gly-22 to Phe-30, Leu-40 to Gly-53, Arg-56 to Lys-64, Lys-93 to Leu-101, Met-176 to Leu-181.
HVCAC42	HVCAC42R	2021	319 - 417	4196	Arg-7 to Asp-13.
HVCAD52	HVCAD52R	2022	1 - 369	4197	

HVCAE01	HVCAE01R	2023	49 - 663	4198	Tyr-44 to Asp-49, Pro-132 to Leu-139, Cys-168 to His-174.	
HVCAE15	HVCAE15R	2024	3 - 605	4199	Pro-49 to Val-58, Gln-60 to Gln-78, Arg-85 to His-99, Phe-122 to Asp-128, Arg-157 to Arg-163, Leu-178 to Thr-193.	
HVCAE22	HVCAE22R	2025	2 - 493	4200	Gly-19 to Ala-24, Asn-32 to Val-38.	S0358: 7, H0659: 7, H0542: 7, H0543: 6, L0666: 5, L0747: 5, S0418: 4, H0494: 4, L0657: 4, L0517: 4, S0374: 4, L0731: 4, L0596: 4, H0341: 3, H0385: 3, S0346: 3, H0553: 3, S0144: 3, S0210: 3, L0764: 3, L0659: 3, L0663: 3, L0664: 3, H0521: 3, L0754: 3, L0779: 3, L0752: 3, L0755: 3, H0445: 3, H0422: 3, T0049: 2, S0116: 2, S0212: 2, S0282: 2, S0376: 2, S0360: 2, S0045: 2, H0486: 2, H0250: 2, H0427: 2, H0581: 2, H0251: 2,

H0545: 2, H0083: 2, H0510: 2, H0412: 2, S0422: 2, L0769: 2, L0637: 2, L0646: 2, L0651: 2, H0144: 2, H0519: 2, H0660: 2, S0380: 2, L0740: 2, L0608: 2, L0603: 2, H0668: 2, H0667: 2, S0412: 2, H0265: 1, T0002: 1, S0402: 1, S6024: 1, H0657: 1, H0656: 1, H0663: 1, H0638: 1, H0580: 1, H0208: 1, S0046: 1, L0717: 1, S0278: 1, H0370: 1, H0586: 1, H0497: 1, H0574: 1, T0109: 1, H0156: 1, H0575: 1, H0590: 1, H0318: 1, S0049: 1, H0544: 1, H0572: 1, H0123: 1, L0471: 1, H0024: 1, H0373: 1, L0163: 1, S0388: 1, H0355: 1, H0375: 1, S6028: 1, H0267: 1, H0687: 1, S0312: 1, S0250: 1, S0003: 1, H0316: 1, H0598: 1,

HVCAE56	HVCAE56R	2026	75 - 572	4201	Asn-20 to Gln-27.
HVCAG56	HVCAG56R	2027	3 - 551	4202	Arg-92 to Arg-101, Lys-134 to Asn-140, Ser-149 to Thr-159, Gly-166 to Ile-175.

H0163: 1, H0551: 1, H0623: 1, H0059: 1, T0042: 1, H0625: 1, H0561: 1, H0509: 1, S0150: 1, H0633: 1, H0646: 1, S0426: 1, L0598: 1, H0529: 1, H0517: 1, L0761: 1, L0521: 1, L0662: 1, L0766: 1, L0775: 1, L0653: 1, L0655: 1, L0783: 1, L0382: 1, L0809: 1, L0519: 1, L0529: 1, L0792: 1, L0665: 1, H0547: 1, H0593: 1, S0126: 1, H0689: 1, H0435: 1, H0666: 1, S0328: 1, H0518: 1, H0522: 1, H0436: 1, S0037: 1, S0027: 1, S0032: 1, L0439: 1, L0756: 1, S0031: 1, L0588: 1, L0595: 1, S0026: 1 and H0136: 1.

HVCAG86	HVCAG86R	2028	150 - 509	4203	Arg-6 to Pro-21.	
HVCAH03	HVCAH03R	2029	3 - 689	4204		H0620: 16, L0747: 12, H0599: 11, L0758: 9, S0358: 8, L0751: 7, L0754: 7, L0596: 7, H0556: 6, H0393: 5, H0706: 5, H0052: 5, H0616: 5, H0529: 5, L0774: 5, L0776: 5, H0483: 4, S0442: 4, H0253: 4, H0012: 4, H0083: 4, S0150: 4, L0662: 4, H0670: 4, H0521: 4, L0748: 4, L0581: 4, H0543: 4, H0341: 3, S0376: 3, H0580: 3, S0007: 3, S0280: 3, H0036: 3, H0618: 3, H0581: 3, H0309: 3, H0510: 3, H0428: 3, H0040: 3, H0087: 3, L0764: 3, L0775: 3, L0655: 3, L0666: 3, L0663: 3, L0664: 3, H0547: 3, L0749: 3, L0750: 3, L0595: 3, H0657: 2, H0656: 2, S0116: 2, H0638: 2, S0356: 2, S0360: 2, S0046: 2,

H0411: 2, H0550: 2, S6014: 2, H0370: 2, H0574: 2, L0622: 2, L0623: 2, H0042: 2, S0182: 2, H0318: 2, H0085: 2, H0373: 2, H0275: 2, H0188: 2, H0030: 2, H0169: 2, H0124: 2, H0135: 2, H0038: 2, H0100: 2, T0042: 2, H0494: 2, H0625: 2, H0509: 2, H0132: 2, H0130: 2, H0538: 2, L0800: 2, L0768: 2, L0381: 2, L0784: 2, L0378: 2, L0653: 2, L0659: 2, L0809: 2, H0651: 2, H0696: 2, H0134: 2, S3014: 2, S0027: 2, L0743: 2, L0744: 2, L0740: 2, L0731: 2, S0031: 2, L0604: 2, H0423: 2, H0352: 2, H0265: 1, T0002: 1, S0134: 1, H0583: 1, H0484: 1, H0661: 1, L0005: 1, S0408: 1, S0045: 1, H0619: 1, H0645: 1, H0351: 1,

H0369: 1, H0549: 1,
T0104: 1, H0592: 1,
H0587: 1, H0333: 1,
H0643: 1, H0331: 1,
H0632: 1, H0270: 1,
H0101: 1, H0013: 1,
H0575: 1, S0010: 1,
H0196: 1, H0263: 1,
T0115: 1, H0597: 1,
H0530: 1, H0545: 1,
H0009: 1, H0571: 1,
H0081: 1, H0050: 1,
H0024: 1, H0095: 1,
L0163: 1, H0051: 1,
S0388: 1, H0107: 1,
H0375: 1, H0266: 1,
S0334: 1, H0288: 1,
H0286: 1, H0252: 1,
H0039: 1, H0424: 1,
H0213: 1, H0181: 1,
H0673: 1, H0674: 1,
S0364: 1, H0708: 1,
S0366: 1, S0036: 1,
H0591: 1, H0551: 1,
H0488: 1, H0412: 1,
H0413: 1, H0623: 1,
T0041: 1, L0475: 1,
H0560: 1, H0561: 1,
S0306: 1, H0714: 1,
H0641: 1, H0633: 1,

HVCAH17	HVCAH17R	2030	1 - 498	4205	H0647: 1, S0144: 1, S0142: 1, S0344: 1, H0695: 1, L0369: 1, L0762: 1, L0763: 1, L0371: 1, L0770: 1, L0769: 1, L0638: 1, L0796: 1, L0772: 1, L0373: 1, L0646: 1, L0374: 1, L0771: 1, L0773: 1, L0648: 1, L0766: 1, L0386: 1, L0375: 1, L0806: 1, L0382: 1, L0665: 1, H0144: 1, S0374: 1, H0693: 1, L0438: 1, H0520: 1, H0593: 1, H0689: 1, H0690: 1, H0658: 1, H0666: 1, H0648: 1, H0672: 1, H0539: 1, H0522: 1, H0555: 1, S0028: 1, S0032: 1, L0752: 1, L0755: 1, H0445: 1, S0434: 1, L0599: 1, S0011: 1, H0667: 1, H0136: 1, S0192: 1, H0542: 1, S0424: 1,
HVCAH56	HVCAH56R	2031	3 - 527	4206	H0506: 1 and H0008: 1.

HVCAI08	HVCAI08R	2032	67 - 453	4207	Pro-6 to Arg-13, Met-34 to Asp-41, Lys-65 to Thr-74.	L0748: 28, L0754: 27, L0740: 15, H0056: 13, L0750: 13, S0007: 12, L0757: 12, S0126: 11, S0222: 10, L0731: 10, S0360: 9, H0144: 9, S0358: 8, H0009: 8, L0005: 7, S0010: 7, H0266: 7, L0742: 7, L0752: 7, H0547: 6, S0408: 5, S0046: 5, L0471: 5, S0003: 5, S0028: 5, L0758: 5, L0362: 5, S0026: 5, H0294: 4, H0341: 4, H0638: 4, S0045: 4, H0327: 4, H0039: 4, H0031: 4, H0413: 4, S0210: 4, L0769: 4, L0662: 4, L0775: 4, L0776: 4, L0809: 4, H0689: 4, S3014: 4, S0206: 4, L0747: 4, H0445: 4, L0608: 4, H0661: 3, S0376: 3, S0278: 3, H0369: 3, H0441: 3, H0575: 3, S0049: 3, S0388: 3, S0036: 3, H0616: 3, H0100: 3, H0494: 3,

S0440: 3, L0520: 3, L0764: 3, S0374: 3, H0682: 3, H0659: 3, H0672: 3, S0027: 3, L0439: 3, S0192: 3, H0624: 2, H0170: 2, T0002: 2, H0716: 2, S0282: 2, H0305: 2, S0420: 2, L0103: 2, H0592: 2, H0586: 2, T0039: 2, T0109: 2, H0013: 2, S0346: 2, T0048: 2, H0318: 2, S0474: 2, H0251: 2, H0597: 2, H0150: 2, H0178: 2, H0569: 2, H0081: 2, H0024: 2, S0051: 2, H0615: 2, H0428: 2, H0644: 2, H0708: 2, H0090: 2, H0412: 2, H0059: 2, H0633: 2, S0142: 2, S0422: 2, L0772: 2, L0646: 2, L0768: 2, L0806: 2, L0782: 2, H0684: 2, S0328: 2, S0378: 2, S0380: 2, H0522: 2, H0134: 2, S0406: 2, S3012: 2, L0751: 2, L0755: 2,

S0031: 2, L0605: 2,
L0592: 2, L0601: 2,
L0600: 2, L0615: 1,
H0265: 1, S0040: 1,
S0342: 1, T0049: 1,
S0134: 1, H0650: 1,
H0657: 1, S0116: 1,
H0663: 1, H0177: 1,
H0125: 1, H0192: 1,
S0348: 1, S0356: 1,
S0442: 1, S0354: 1,
S0444: 1, S0410: 1,
T0008: 1, H0580: 1,
H0208: 1, S0132: 1,
S6026: 1, S0300: 1,
H0549: 1, H0431: 1,
H0370: 1, H0438: 1,
H0574: 1, H0250: 1,
H0427: 1, H0097: 1,
T0082: 1, H0421: 1,
L2250: 1, H0309: 1,
T0110: 1, H0544: 1,
H0086: 1, H0563: 1,
H0014: 1, H0051: 1,
H0021: 1, H0083: 1,
H0594: 1, S6028: 1,
H0687: 1, H0290: 1,
H0286: 1, S0214: 1,
H0622: 1, T0023: 1,
H0111: 1, H0628: 1,

H0617: 1, L0055: 1,
H0166: 1, H0135: 1,
H0163: 1, H0591: 1,
H0038: 1, S0112: 1,
L0564: 1, T0041: 1,
T0042: 1, S0014: 1,
S0438: 1, H0509: 1,
H0641: 1, H0529: 1,
L0762: 1, L4747: 1,
L0372: 1, L0553: 1,
L0771: 1, L0773: 1,
L0521: 1, L0767: 1,
L0766: 1, L5569: 1,
L5574: 1, L0381: 1,
L0650: 1, L0774: 1,
L0376: 1, L0653: 1,
L0527: 1, L0657: 1,
L0518: 1, L0783: 1,
L0545: 1, L0532: 1,
L0666: 1, L0663: 1,
S0216: 1, H0520: 1,
H0593: 1, H0711: 1,
H0690: 1, H0670: 1,
H0660: 1, H0666: 1,
H0539: 1, S0152: 1,
S0332: 1, H0521: 1,
H0704: 1, S0044: 1,
S0146: 1, S0404: 1,
L0749: 1, S0260: 1,
H0444: 1, S0434: 1,

HVCAI24	HVCAI24R	2033	108 - 365	4208		L0596: 1, L0588: 1, L0599: 1, L0366: 1, S0011: 1, H0668: 1, H0216: 1, S0242: 1, S0196: 1, H0542: 1, H0543: 1, L0697: 1, L0698: 1, S0398: 1, S0424: 1, S3020: 1 and S0460: 1.
HVCAI79	HVCAI79R	2034	2 - 508	4209	Asn-1 to Lys-6.	
HVCAJ27	HVCAJ27R	2035	1 - 537	4210		S0408: 5, L0809: 5, L0800: 4, L0804: 4, H0647: 3, L0803: 3, L0775: 3, L0805: 3, S0126: 3, L0751: 3, S0360: 2, S0278: 2, H0409: 2, H0424: 2, H0617: 2, H0494: 2, L0783: 2, H0670: 2, L0747: 2, L0777: 2, L0731: 2, L0601: 2, H0556: 1, H0295: 1, S0116: 1, H0341: 1, S0442: 1, S0358: 1, S0376: 1, H0370: 1, H0042: 1, H0575: 1, S0049: 1, H0150: 1, H0163: 1, S0294: 1, S0438: 1, H0633: 1,

HVCAJ81	HVCAJ81R	2036	1 - 477	4211	Lys-61 to Gln-73, Gln-81 to Ser-97.	H0529: 1, L0769: 1, L0374: 1, L0764: 1, L0560: 1, L0774: 1, L0376: 1, L0629: 1, L0807: 1, L0657: 1, L0659: 1, L0791: 1, L0666: 1, H0682: 1, H0683: 1, H0658: 1, H0666: 1, S0328: 1, H0539: 1, H0555: 1, H0436: 1, S3012: 1, L0779: 1, L0752: 1, L0757: 1, L0758: 1, L0759: 1, H0667: 1 and H0423: 1.
HVCAJ95	HVCAJ95R	2037	1 - 210	4212	Arg-14 to Gly-41, Arg-47 to Glu-53, Gln-56 to Lys-70.	
HVCAK02	HVCAK02R	2038	3 - 467	4213	Glu-1 to Lys-9.	
HVCAL06	HVCAL06R	2039	3 - 383	4214		
HVCAO17	HVCAO17R	2040	1 - 516	4215		H0009: 3, H0135: 3, H0494: 3, H0265: 2, H0341: 2, H0484: 2, S0046: 2, S0222: 2, H0266: 2, S0144: 2, H0658: 2, L0742: 2, H0542: 2, H0423: 2, H0171: 1, T0002: 1,

HVCAO63	HVCAO63R	2041	10 - 306	4216	Pro-56 to Thr-65.
HVCAP89	HVCAP89R	2042	3 - 407	4217	Val-105 to Ile-113,
HVCAQ53	HVCAQ53R	2043	28 - 480	4218	H0685: 1, S0040: 1, H0295: 1, S0420: 1, S0356: 1, S0360: 1, H0392: 1, H0586: 1, T0109: 1, H0427: 1, H0599: 1, H0618: 1, H0318: 1, H0597: 1, H0544: 1, H0012: 1, H0024: 1, H0014: 1, S0022: 1, H0428: 1, H0535: 1, H0068: 1, H0090: 1, H0040: 1, H0063: 1, H0264: 1, H0413: 1, T0042: 1, H0560: 1, H0633: 1, S0142: 1, S0422: 1, H0529: 1, H0519: 1, S0126: 1, H0684: 1, H0666: 1, H0672: 1, H0134: 1, H0214: 1, H0631: 1, S0027: 1, S0028: 1, L0753: 1, L0757: 1, L0599: 1, L0608: 1, L0594: 1, S0026: 1, H0667: 1, H0136: 1, S0276: 1 and H0543: 1.

HVCAQ84	HVCAQ84R	2044	193 - 402	4219	Asp-128 to Phe-137, Arg-145 to Arg-151.	
HVCAR87	HVCAR87R	2045	3 - 455	4220		
HVCAS08	HVCAS08R	2046	2 - 715	4221	Asp-15 to Thr-23.	L0777: 12, H0341: 6, S0440: 6, S0126: 6, S0358: 5, H0250: 5, H0428: 5, H0031: 5, H0090: 5, L0747: 5, L0731: 5, H0542: 5, S0422: 4, H0547: 4, L0748: 4, L0749: 4, L0759: 4, H0624: 3, H0580: 3, H0486: 3, S0003: 3, S0214: 3, H0494: 3, L0770: 3, L0764: 3, L0758: 3, L0599: 3, S0026: 3, H0543: 3, H0170: 2, H0657: 2, H0656: 2, S0420: 2, S0442: 2, S0444: 2, S0010: 2, H0318: 2, H0581: 2, H0046: 2, H0014: 2, H0083: 2, L0483: 2, H0040: 2, H0551: 2, L0769: 2, L0773: 2, L0766: 2, L0774: 2, L0659: 2, H0144: 2,
HVCAS52	HVCAS52R	2047	1 - 687	4222		

L0565: 2, H0659: 2, H0666: 2, H0648: 2, S0328: 2, H0525: 2, H0696: 2, H0134: 2, S0406: 2, L0756: 2, L0752: 2, L0757: 2, S0436: 2, L0595: 2, S0384: 2, H0506: 2, H0171: 1, S0040: 1, T0049: 1, H0661: 1, H0638: 1, S0418: 1, S0354: 1, S0360: 1, S0410: 1, S0007: 1, S0300: 1, S0278: 1, S6014: 1, H0431: 1, H0587: 1, H0333: 1, H0574: 1, H0270: 1, T0040: 1, L0586: 1, H0635: 1, H0156: 1, T0082: 1, H0706: 1, S0346: 1, H0421: 1, H0052: 1, H0597: 1, H0545: 1, H0242: 1, L0471: 1, H0373: 1, S0051: 1, H0375: 1, H0594: 1, H0687: 1, H0288: 1, H0328: 1, H0553: 1, L0143: 1, H0032: 1, H0598: 1, H0634: 1, H0616: 1,

| | HVCAS57 | HVCAS57R | 2048 | 114 - 257 | 4223 | H0413: 1, H0100: 1,
T0042: 1, H0560: 1,
H0625: 1, H0561: 1,
S0150: 1, H0633: 1,
H0652: 1, L0763: 1,
L0371: 1, L0638: 1,
L0667: 1, L0648: 1,
L0521: 1, L0662: 1,
L0649: 1, L0803: 1,
L0776: 1, L0783: 1,
L0383: 1, L0647: 1,
L0664: 1, L0665: 1,
H0520: 1, H0689: 1,
H0414: 1, H0658: 1,
H0670: 1, H0660: 1,
H0710: 1, S0152: 1,
S0332: 1, S0454: 1,
H0522: 1, H0704: 1,
H0214: 1, S3012: 1,
S3014: 1, S0027: 1,
S0028: 1, S0206: 1,
L0740: 1, L0750: 1,
S0434: 1, L0581: 1,
H0653: 1, H0667: 1,
S0242: 1, S0194: 1,
H0422: 1 and S0424: 1.
L0748: 6, L0439: 6,
L0731: 6, H0663: 4,
S0354: 4, H0038: 3,
S0150: 3, L0666: 3, |

1421

S0404: 3, L0758: 3, S0212: 2, H0497: 2, H0551: 2, H0412: 2, H0561: 2, S0210: 2, L0521: 2, L0526: 2, H0506: 2, H0661: 1, S0418: 1, S0420: 1, S0358: 1, S0408: 1, H0619: 1, H0431: 1, H0486: 1, T0040: 1, T0060: 1, H0013: 1, L0021: 1, H0590: 1, H0581: 1, H0052: 1, H0263: 1, H0373: 1, H0266: 1, S0312: 1, S0314: 1, S0022: 1, H0622: 1, H0553: 1, H0708: 1, H0413: 1, H0560: 1, L0640: 1, L0646: 1, L0764: 1, L0649: 1, L0389: 1, L0804: 1, L0659: 1, L0543: 1, L0789: 1, L0664: 1, H0697: 1, S0374: 1, H0520: 1, H0435: 1, H0659: 1, H0666: 1, S0152: 1, S0406: 1, H0436: 1, S0027: 1, L0742: 1, L0753: 1, L0595: 1,

HVCAU64	HVCAU64R	2049	3 - 404	4224	Arg-7 to Val-15.	H0668: 1, S0276: 1 and H0422: 1.
HVCBD18	HVCBD18R	2050	190 - 309	4225	Val-3 to Lys-9, Leu-32 to Gln-40.	
HVCBE76	HVCBE76R	2051	3 - 431	4226		
HVCBE79	HVCBE79R	2052	3 - 524	4227		
HVCBF38	HVCBF38R	2053	3 - 251	4228		
HVCBF89	HVCBF89R	2054	2 - 361	4229		AR039: 419, AR096: 339, AR053: 225, AR052: 212, AR104: 168, AR089: 168, AR060: 114, AR033: 108, AR055: 99, AR061: 74
HVCBG01	HVCBG01R	2055	22 - 318	4230	Lys-7 to Thr-13, Asp-24 to Thr-30, Gly-39 to Glu-52.	
HVCBQ31	HVCBQ31R	2056	2 - 448	4231		
HVCCA08	HVCCA08R	2057	2 - 298	4232		
HVCCK34	HVCCK34R	2058	34 - 699	4233		
HVCCR91	HVCCR91R	2059	1 - 156	4234		
HVCCV93	HVCCV93R	2060	203 - 469	4235	Ser-25 to Asn-31, Asp-38 to Val-48, Ser-57 to Gly-63.	
HVCDA75	HVCDA75R	2061	1 - 315	4236		
HVCDD19	HVCDD19R	2062	31 - 459	4237	Pro-1 to Ser-7, Val-22 to Asn-29,	

HVCDF50	HVCDF50R	2063	3 - 353	4238		
HVCDH77	HVCDH77R	2064	2 - 679	4239	Pro-45 to Pro-51, Arg-59 to Val-64, Val-92 to Lys-98.	
					Ser-56 to Phe-69, Arg-113 to Thr-123, Leu-128 to Ser-135, Lys-148 to Ala-156, Gly-166 to Ser-171, Glu-188 to Leu-194, Ala-211 to Gly-222.	H0666: 8, S0144: 6, L0747: 5, H0545: 4, L0769: 4, L0766: 4, L0731: 4, H0341: 3, L0764: 3, L0794: 3, L0750: 3, L0755: 3, L0758: 3, S0045: 2, H0257: 2, H0581: 2, H0546: 2, H0135: 2, L0803: 2, L0657: 2, L0789: 2, L0666: 2, S0044: 2, H0445: 2, L0588: 2, L0594: 2, L0601: 2, H0543: 2, S0040: 1, H0295: 1, H0583: 1, S0116: 1, S0212: 1, H0661: 1, H0664: 1, S0418: 1, S0356: 1, S0358: 1, S0360: 1, S0007: 1, S0046: 1, S0132: 1, S0278: 1, H0592: 1, H0586: 1, H0559: 1, H0575: 1, S0182: 1, H0620: 1, S0388: 1, H0083: 1, S0312: 1,

HVVAB25	HVVAB25R	2065	3 - 155	4240	H0617: 1, H0169: 1, H0708: 1, H0163: 1, H0551: 1, H0488: 1, T0069: 1, H0102: 1, H0100: 1, H0494: 1, L0475: 1, H0646: 1, S0142: 1, S0002: 1, L0762: 1, L0796: 1, L0646: 1, L0800: 1, L0645: 1, L0771: 1, L0662: 1, L0768: 1, L0386: 1, L0651: 1, L0783: 1, L0790: 1, L0791: 1, L0663: 1, H0144: 1, L0438: 1, H0519: 1, H0134: 1, S3014: 1, L0740: 1, L0779: 1, L0757: 1, S0031: 1, L0592: 1, H0665: 1, S0276: 1 and H0422: 1.
HVVAB37	HVVAB37R	2066	74 - 619	4241	
HVVAC18	HVVAC18R	2067	56 - 238	4242	
HVVAD74	HVVAD74R	2068	403 - 570	4243	L0766: 12, S0412: 8, S0422: 4, L0756: 4, H0341: 3, H0638: 3, L0770: 3, L0666: 3, L0777: 3, S0360: 2, H0318: 2, H0327: 2,

L0803: 2, H0670: 2,
L0740: 2, L0731: 2,
S0260: 2, S0436: 2,
H0170: 1, H0125: 1,
S0418: 1, S0444: 1,
H0489: 1, H0580: 1,
H0734: 1, S0222: 1,
H0587: 1, H0497: 1,
H0013: 1, H0075: 1,
H0427: 1, H0046: 1,
H0354: 1, L0142: 1,
L0055: 1, H0090: 1,
H0412: 1, S0440: 1,
H0647: 1, H0529: 1,
L0369: 1, L0371: 1,
L0772: 1, L0646: 1,
L0771: 1, L0649: 1,
L0381: 1, L0650: 1,
L0774: 1, L0653: 1,
L0655: 1, L0606: 1,
L0790: 1, L0532: 1,
L0663: 1, L0664: 1,
S0374: 1, H0593: 1,
H0711: 1, H0659: 1,
H0658: 1, H0672: 1,
H0521: 1, L0779: 1,
L0755: 1, L0758: 1,
L0759: 1, L0593: 1,
S0242: 1, H0423: 1 and
H0721: 1.

HVVAE73	HVVAE73R	2069	96 - 347	4244	Glu-21 to Ile-26.	
HVVAE88	HVVAE88R	2070	157 - 381	4245	Ser-1 to Asp-9, Lys-26 to Gln-36.	H0672: 2, L0748: 2, H0156: 1 and H0494: 1.
HVVAH91	HVVAH91R	2071	3 - 245	4246		L0747: 5, L0731: 4, L0742: 3, L0745: 3, L0769: 2, L0766: 2, L0774: 2, L0597: 2, L0604: 2, T0049: 1, S0358: 1, H0549: 1, H0486: 1, T0040: 1, S0280: 1, H0318: 1, H0263: 1, H0551: 1, H0633: 1, H0529: 1, L0640: 1, L0763: 1, L0771: 1, L0768: 1, L0388: 1, L0657: 1, L0659: 1, L0517: 1, L0666: 1, L0663: 1, H0648: 1, H0672: 1, H0521: 1, L0749: 1, L0750: 1, L0779: 1, L0780: 1 and L0592: 1.
HVVAI03	HVVAI03R	2072	2 - 307	4247		
HVVAJ23	HVVAJ23R	2073	3 - 527	4248	Gln-33 to Ala-38, Thr-47 to Asn-64, Pro-117 to Leu-122, Thr-160 to Gly-171.	
HVVAJ28	HVVAJ28R	2074	1 - 327	4249	His-1 to Trp-6, Gly-28 to Asp-34, Arg-41 to Ala-53,	

HVVAJ47	HVVAJ47R	2075	159 - 443	4250	Arg-69 to Thr-76, Leu-97 to Glu-103.	L0659: 55, H0644: 23, L0748: 18, L0666: 17, L0747: 17, H0622: 16, S0194: 16, H0553: 15, L0662: 15, S0126: 15, L0740: 15, L0754: 14, H0031: 13, H0593: 12, L0649: 11, H0435: 11, L0757: 11, H0124: 10, S0250: 9, S0356: 8, H0672: 7, L0362: 7, L0779: 6, S0210: 5, L0771: 5, L0663: 5, L0664: 5, H0547: 5, L0750: 5, L0601: 5, S0360: 4, H0619: 4, L0764: 4, L0804: 4, L0775: 4, S0358: 3, H0486: 3, H0628: 3, H0264: 3, L0451: 3, L0776: 3, L0655: 3, L0783: 3, H0693: 3, H0660: 3, S0454: 3, L0749: 3, L0605: 3, S0192: 3, H0170: 2, H0294: 2, S0180: 2, H0586: 2, H0013: 2, H0687: 2, H0428: 2,

L0483: 2, H0488: 2, S0450: 2, H0647: 2, S0208: 2, L0648: 2, L0523: 2, L0809: 2, L0665: 2, H0144: 2, L0565: 2, H0690: 2, H0518: 2, H0696: 2, S3012: 2, L0752: 2, L0755: 2, L0731: 2, H0665: 2, H0171: 1, H0656: 1, S0212: 1, S0376: 1, S0410: 1, S0132: 1, H0393: 1, L0717: 1, H0392: 1, H0331: 1, H0485: 1, T0040: 1, T0060: 1, L0021: 1, H0599: 1, T0082: 1, H0618: 1, H0052: 1, H0085: 1, T0110: 1, H0046: 1, H0050: 1, L0471: 1, H0355: 1, S0003: 1, H0615: 1, H0039: 1, L0143: 1, H0111: 1, L0455: 1, S0366: 1, H0135: 1, H0040: 1, H0551: 1, H0100: 1, L0564: 1, H0509: 1, H0517: 1, L0763: 1, L0769: 1, L0772: 1,

HVVAK42	HVVAK42R	2076	121 - 312	4251	L0646: 1, L0768: 1, L0375: 1, L0784: 1, L0806: 1, L0805: 1, L0653: 1, L0654: 1, L0517: 1, L0384: 1, L0383: 1, L0647: 1, L0789: 1, L0791: 1, L0438: 1, H0520: 1, H0689: 1, H0682: 1, H0684: 1, S0152: 1, H0704: 1, H0555: 1, S0432: 1, S3014: 1, S0027: 1, S0028: 1, L0744: 1, L0758: 1, H0595: 1, H0707: 1, S0436: 1, L0591: 1, L0599: 1, S0196: 1, H0422: 1, S0384: 1 and L0600: 1.
HVVAK46	HVVAK46R	2077	3 - 782	4252	Lys-1 to Lys-14, Phe-21 to Trp-26, Val-87 to Cys-92, Thr-139 to Gln-153, Gln-156 to Lys-162, Glu-171 to Leu-177.
HVVAK68	HVVAK68R	2078	372 - 584	4253	L0747: 22, L0599: 11, L0766: 9, L0748: 9, L0483: 8, L0740: 7, L0665: 5, L0754: 5,

L0764: 4, L0775: 4,
L0362: 4, H0695: 3,
L0663: 3, H0144: 3,
L0755: 3, H0170: 2,
L0717: 2, H0437: 2,
H0036: 2, H0251: 2,
H0545: 2, L0471: 2,
H0266: 2, H0553: 2,
H0413: 2, L0763: 2,
L0772: 2, L0655: 2,
L0543: 2, L0666: 2,
H0547: 2, S0406: 2,
L0745: 2, L0749: 2,
L0731: 2, L0757: 2,
L0758: 2, H0445: 2,
L0596: 2, L0591: 2,
L0581: 2, L0608: 2,
S0192: 2, H0624: 1,
S0134: 1, H0650: 1,
S0116: 1, H0663: 1,
S0356: 1, S0444: 1,
H0580: 1, S0300: 1,
H0441: 1, H0442: 1,
H0586: 1, H0587: 1,
H0333: 1, H0643: 1,
H0632: 1, H0486: 1,
H0013: 1, H0118: 1,
H0042: 1, H0004: 1,
T0048: 1, H0318: 1,
H0421: 1, H0041: 1,

HVVAK85	HVVAK85R	2079	2 - 373	4254		
HVVAL81	HVVAL81R	2080	97 - 408	4255	Gly-72 to Asp-81.	H0014: 1, S0051: 1, H0071: 1, H0083: 1, H0687: 1, S0003: 1, S0214: 1, H0688: 1, H0031: 1, H0163: 1, H0038: 1, H0040: 1, H0616: 1, H0063: 1, H0059: 1, T0069: 1, L0475: 1, S0015: 1, H0633: 1, H0538: 1, L0769: 1, L0796: 1, L0637: 1, L0373: 1, L0521: 1, L0375: 1, L0806: 1, L0661: 1, L0527: 1, L0656: 1, L0809: 1, L0647: 1, L0664: 1, H0519: 1, H0682: 1, H0435: 1, H0659: 1, H0670: 1, H0672: 1, S0330: 1, H0521: 1, H0696: 1, H0134: 1, H0214: 1, H0555: 1, L0746: 1, L0750: 1, L0752: 1, L0759: 1, H0343: 1, L0589: 1, L0590: 1, S0194: 1, H0543: 1, S0452: 1 and H0506: 1. AR089: 67, AR104: 8,

AR096: 5, AR060: 4, AR055: 4, AR061: 3 H0169: 21, H0674: 19, L0754: 19, H0309: 15, T0060: 7, H0038: 7, H0509: 7, S0044: 7, S0358: 6, H0124: 6, H0163: 6, H0672: 6, L0731: 6, L0750: 5, L0603: 5, H0032: 4, H0616: 4, S0330: 4, L0749: 4, L0755: 4, H0597: 3, S0318: 3, H0622: 3, L0540: 3, S0328: 3, S0406: 3, L0758: 3, S0444: 2, H0486: 2, H0122: 2, H0355: 2, S0316: 2, L0770: 2, L0646: 2, L0771: 2, L0662: 2, L0364: 2, L0803: 2, L0783: 2, H0696: 2, L0743: 2, L0747: 2, L0581: 2, H0506: 2, S0356: 1, S0376: 1, H0675: 1, H0643: 1, H0706: 1, H0253: 1, H0085: 1, H0204: 1, H0510: 1, S0314: 1, H0553: 1, H0673: 1,

HVVAP65	HVVAP65RP 00B	2081	124 - 354	4256	Arg-1 to Cys-10, Asn-29 to Phe-38.	S0366: 1, H0380: 1, T0004: 1, S0438: 1, L0372: 1, L0773: 1, L0767: 1, L0806: 1, L0542: 1, L0809: 1, L0519: 1, L0529: 1, H0691: 1, S0148: 1, H0660: 1, S0004: 1, S0146: 1, L0780: 1, S0194: 1 and S0276: 1.
HVVAS27	HVVAS27RP 00B	2082	3 - 413	4257		
HVVAW26	HVVAW26R	2083	1 - 324	4258	Lys-62 to Tyr-73.	
HVVBD91	HVVBD91RP 00B	2084	2 - 436	4259		
HVVBF09	HVVBF09R	2085	3 - 236	4260	Leu-36 to Ser-43, Gly-68 to Phe-73.	
HVVBF66	HVVBF66R	2086	7 - 171	4261	Lys-17 to Tyr-22.	H0672: 2, S0007: 1, L0717: 1, H0545: 1, L0764: 1, L0649: 1, L0659: 1, L0809: 1, L0438: 1, H0555: 1, L0748: 1, L0754: 1 and L0752: 1.
HVVBH88	HVVBH88R	2087	1 - 189	4262		L0659: 14, L0740: 11, H0052: 8, L0662: 8, L0666: 8, H0059: 7, H0265: 6, H0040: 6,

L0596: 6, S0356: 5,
S0358: 5, H0539: 5,
L0751: 5, L0750: 5,
H0431: 4, L0759: 4,
H0442: 3, H0575: 3,
H0051: 3, T0010: 3,
H0428: 3, H0031: 3,
H0135: 3, H0433: 3,
H0412: 3, H0509: 3,
L0637: 3, L0372: 3,
L0521: 3, L0806: 3,
L0519: 3, L0663: 3,
L0664: 3, L0665: 3,
S0378: 3, L0591: 3,
L0593: 3, H0483: 2,
S0360: 2, H0587: 2,
H0013: 2, H0036: 2,
S0010: 2, S0049: 2,
H0194: 2, T0110: 2,
H0046: 2, H0123: 2,
H0024: 2, H0083: 2,
H0179: 2, T0006: 2,
H0038: 2, H0538: 2,
S0002: 2, L0769: 2,
L0796: 2, L0646: 2,
L0374: 2, L0648: 2,
L0776: 2, H0520: 2,
H0519: 2, H0689: 2,
H0555: 2, S0028: 2,
L0439: 2, L0752: 2,

L0755: 2, L0366: 2, H0542: 2, H0556: 1, S0040: 1, S0114: 1, T0049: 1, S0212: 1, H0638: 1, H0125: 1, S0420: 1, S0354: 1, S0376: 1, H0675: 1, H0489: 1, S0468: 1, S0132: 1, S0005: 1, H0492: 1, T0109: 1, S0346: 1, H0505: 1, H0318: 1, H0581: 1, H0196: 1, H0309: 1, H0263: 1, H0545: 1, H0050: 1, L0471: 1, H0012: 1, H0620: 1, H0014: 1, S0051: 1, H0510: 1, H0266: 1, H0188: 1, S0214: 1, H0252: 1, H0039: 1, H0622: 1, H0424: 1, H0030: 1, H0553: 1, H0644: 1, H0316: 1, S0036: 1, H0634: 1, H0087: 1, H0551: 1, L0564: 1, T0041: 1, T0042: 1, L0475: 1, H0130: 1, S0144: 1, S0142: 1, S0344: 1, S0210: 1, L0638: 1,

L0761: 1, L0803: 1, L0653: 1, L0661: 1, L0527: 1, L0636: 1, L0783: 1, L0809: 1, T0068: 1, L0438: 1, S0126: 1, H0690: 1, H0682: 1, H0435: 1, H0658: 1, H0670: 1, H0660: 1, H0672: 1, H0651: 1, S0380: 1, H0522: 1, S0044: 1, H0478: 1, H0479: 1, S0027: 1, L0742: 1, L0748: 1, L0747: 1, L0756: 1, L0757: 1, L0758: 1, H0444: 1, H0445: 1, L0597: 1, L0581: 1, L0603: 1, S0011: 1, S0194: 1, S0196: 1, S0042: 1, L0697: 1 and H0506: 1.

HVVBI16	HVVBI16R	2088	2 - 592	4263	
HVVBJ08	HVVBJ08R	2089	150 - 578	4264	Gln-5 to Pro-13, Pro-25 to Lys-32, Asp-62 to Ser-72, Gln-78 to Ser-85, Pro-91 to Glu-105.
HVVBJ55	HVVBJ55RP00B	2090	3 - 413	4265	
HVVBK13	HVVBK13R	2091	1 - 633	4266	

HVVBO65	HVVBO65R	2092	3 - 644	4267	Pro-62 to Pro-73, Thr-80 to Ser-92, Gln-108 to Tyr-116.	
HVVBO88	HVVBO88R	2093	50 - 433	4268		
HVVBR70	HVVBR70RP00B	2094	2 - 406	4269		
HVVBT33	HVVBT33R	2095	116 - 316	4270	Asn-15 to Leu-27, Lys-48 to Val-53.	
HVVBT60	HVVBT60R	2096	454 - 2	4271		
HVVBY87	HVVBY87R	2097	3 - 161	4272		
HVVCB04	HVVCB04R	2098	2 - 580	4273	Pro-1 to Phe-9, Ser-111 to Asn-117, Ser-159 to Pro-167.	
HVVCB08	HVVCB08R	2099	1 - 792	4274	Ser-56 to Tyr-62, Gln-67 to Pro-74, Thr-83 to Gly-94, Gln-120 to Gln-130, Pro-150 to Ser-157.	
HVVCC06	HVVCC06R	2100	299 - 427	4275		
HVVCD65	HVVCD65R	2101	224 - 481	4276	Lys-40 to Gly-47.	
HVVCD81	HVVCD81R	2102	2 - 640	4277		
HVVCD87	HVVCD87R	2103	447 - 695	4278		L0439: 23, L0438: 20, H0556: 10, L0665: 10, S0358: 9, L0731: 8, H0423: 8, H0069: 7, H0622: 7, L0666: 7, L0748: 7, L0747: 7, H0486: 6, H0090: 6, L0664: 6, H0519: 6,

H0539: 6, L0749: 6, L0596: 6, S0222: 5, H0457: 5, H0435: 5, L0756: 5, L0758: 5, L0601: 5, H0013: 4, H0046: 4, H0150: 4, H0266: 4, H0038: 4, L0771: 4, L0662: 4, L0659: 4, L0663: 4, H0670: 4, H0672: 4, H0521: 4, S0404: 4, L0745: 4, H0265: 3, S0114: 3, H0650: 3, H0662: 3, S0360: 3, S0045: 3, H0333: 3, H0156: 3, H0318: 3, H0050: 3, H0620: 3, T0010: 3, H0375: 3, H0428: 3, H0039: 3, H0591: 3, H0040: 3, H0063: 3, H0412: 3, H0100: 3, H0529: 3, L0770: 3, L0775: 3, L0809: 3, H0547: 3, S0126: 3, H0436: 3, L0741: 3, L0752: 3, S0026: 3, H0624: 2, H0713: 2, H0583: 2, S0116: 2, H0663: 2, H0305: 2, H0638: 2,

S0418: 2, S0442: 2,
H0580: 2, S0007: 2,
H0619: 2, L0717: 2,
H0261: 2, H0392: 2,
H0586: 2, H0587: 2,
H0635: 2, H0271: 2,
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L0456: 2, H0616: 2,
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L0764: 2, L0773: 2,
L0521: 2, L0774: 2,
L0378: 2, L0806: 2,
L0493: 2, L0517: 2,
L0647: 2, H0690: 2,
H0659: 2, H0658: 2,
L0740: 2, L0757: 2,
L0588: 2, H0542: 2,
H0422: 2, L0600: 2,
H0171: 1, S0218: 1,
H0657: 1, H0656: 1,
H0341: 1, S0298: 1,
S0212: 1, S0110: 1,
S0001: 1, S0030: 1,
H0661: 1, S0420: 1,
S0356: 1, S0376: 1,
S0444: 1, S0046: 1,
S0476: 1, H0550: 1,
H0441: 1, H0438: 1,
H0492: 1, H0485: 1,
H0427: 1, S0280: 1,

S0010: 1, S0665: 1,
H0581: 1, S0049: 1,
H0052: 1, H0251: 1,
H0309: 1, H0263: 1,
H0597: 1, H0041: 1,
H0563: 1, H0081: 1,
H0012: 1, H0023: 1,
H0051: 1, S0051: 1,
H0356: 1, H0267: 1,
H0179: 1, S0250: 1,
H0252: 1, H0615: 1,
T0023: 1, T0006: 1,
H0031: 1, H0644: 1,
L0055: 1, H0673: 1,
S0364: 1, L0455: 1,
H0068: 1, H0400: 1,
S0036: 1, H0087: 1,
H0551: 1, H0102: 1,
T0041: 1, H0625: 1,
H0641: 1, S0344: 1,
S0002: 1, S0426: 1,
L0369: 1, L0769: 1,
L5575: 1, L0772: 1,
L0373: 1, L0372: 1,
L0363: 1, L0767: 1,
L0649: 1, L0560: 1,
L0650: 1, L0375: 1,
L0661: 1, L0807: 1,
L0384: 1, L0519: 1,
L0792: 1, S0428: 1,

HVVCD90	HVVCD90R	2104	47 - 754	4279	H0144: 1, L0352: 1, H0520: 1, H0682: 1, H0660: 1, H0651: 1, H0710: 1, H0518: 1, S0152: 1, H0579: 1, H0696: 1, S0146: 1, H0576: 1, H0631: 1, S3012: 1, S0037: 1, S0028: 1, L0751: 1, L0754: 1, L0779: 1, L0777: 1, L0780: 1, L0753: 1, L0759: 1, S0031: 1, H0445: 1, L0687: 1, L0599: 1, L0608: 1, L0595: 1, H0136: 1, S0242: 1, S0194: 1, S0276: 1, H0543: 1, S0424: 1 and S0452: 1.
HVVCE63	HVVCE63R	2105	338 - 778	4280	
HVVCE65	HVVCE65R	2106	2 - 214	4281	
HVVCF38	HVVCF38R	2107	3 - 497	4282	
HVVCG29	HVVCG29R	2108	1 - 441	4283	H0135: 2, S0046: 1, S0222: 1, H0052: 1, H0672: 1, S0328: 1 and H0214: 1.
HVVCG31	HVVCG31R	2109	2 - 415	4284	
HVVCG46	HVVCG46R	2110	3 - 350	4285	Gly-16 to Lys-22, Trp-82 to Lys-87.

HVVCG93	HVVCG93R	2111	1 - 405	4286	Arg-48 to Asn-57, Lys-77 to Glu-83, Phe-106 to Asp-112.	AR089: 107, AR096: 52, AR104: 30, AR060: 27, AR061: 14, AR055: 13
HVVCH28	HVVCH28R	2112	3 - 350	4287	Glu-81 to Gly-91, Arg-107 to Asn-116.	
HVVCI28	HVVCI28R	2113	3 - 119	4288	Asp-10 to Lys-15, Lys-29 to Asp-34.	
HVVCI50	HVVCI50R	2114	44 - 460	4289		
HVVCI85	HVVCI85R	2115	3 - 647	4290	Asp-1 to Thr-14, Ala-76 to Thr-88, Asp-101 to Lys-115, Ala-128 to Gln-136, Pro-141 to Gln-151.	
HVVCJ51	HVVCJ51R	2116	1 - 351	4291		H0585: 4, H0457: 4, L0809: 4, L0747: 4, S0442: 3, H0492: 3, H0427: 3, H0318: 3, L0666: 3, H0690: 3, H0686: 2, H0662: 2, S0358: 2, S0408: 2, H0150: 2, H0135: 2, H0063: 2, H0494: 2, L0761: 2, L0764: 2, L0773: 2, L0662: 2, L0378: 2, L0665: 2, H0670: 2, S0406: 2, L0744: 2, L0749: 2, L0601: 2, H0170: 1,

H0685: 1, H0661: 1, H0402: 1, S0348: 1, S0354: 1, S0376: 1, S0360: 1, S0278: 1, H0586: 1, H0333: 1, H0642: 1, L0622: 1, S0280: 1, H0599: 1, H0253: 1, H0231: 1, H0545: 1, H0373: 1, H0266: 1, H0553: 1, S0036: 1, H0551: 1, H0116: 1, H0264: 1, H0059: 1, S0352: 1, S0440: 1, H0646: 1, L0640: 1, L0639: 1, L0630: 1, L0772: 1, L0373: 1, L0646: 1, L0800: 1, L0641: 1, L0374: 1, L0644: 1, L0645: 1, L0794: 1, L0766: 1, L0774: 1, L0775: 1, L0659: 1, L0793: 1, L0532: 1, L0664: 1, H0520: 1, H0672: 1, S0380: 1, H0696: 1, H0478: 1, H0345: 1, L0439: 1, L0750: 1, L0759: 1, H0343: 1, H0595: 1 and H0422: 1.

HVVCK59	HVVCK59R	2117	1 - 147	4292	L0751: 3, L0757: 3, L0662: 2, H0686: 1, H0266: 1, L0055: 1, L0763: 1, L0764: 1, L0768: 1, L0805: 1, L0653: 1, L0666: 1, H0690: 1, H0672: 1, L0777: 1, L0758: 1 and S0276: 1.
HVVCK78	HVVCK78R	2118	3 - 320	4293	
HVVCL52	HVVCL52R	2119	1 - 339	4294	Pro-11 to Lys-31, Ser-36 to Gln-44, Thr-53 to Gly-58, Ala-74 to Arg-87, Pro-105 to His-113.
HVVCL73	HVVCL73R	2120	2 - 775	4295	Gly-8 to Lys-22, Phe-29 to Trp-34, Val-95 to Cys-100, Thr-147 to Gln-161, Gln-164 to Lys-170, Glu-179 to Leu-185, Pro-194 to Gly-199.
HVVCM67	HVVCM67R	2121	3 - 293	4296	Trp-36 to Thr-43, Gly-51 to Thr-70, Tyr-87 to Glu-97.
HVVCM84	HVVCM84R	2122	3 - 347	4297	
HVVCN20	HVVCN20R	2123	35 - 466	4298	
HVVCN29	HVVCN29R	2124	96 - 332	4299	H0521: 182, H0522: 34, S0002: 30, S0278: 27, H0638: 23, S0344:

13, S0144: 11, S0142: 9,
H0580: 8, L0740: 6,
L0747: 6, H0445: 6,
H0090: 5, L0756: 5,
L0777: 5, S0360: 4,
H0591: 4, S0426: 4,
L0771: 4, L0766: 4,
L0776: 4, L0754: 4,
S0194: 4, H0341: 3,
S0376: 3, H0393: 3,
H0575: 3, H0538: 3,
H0144: 3, H0716: 2,
S0212: 2, H0637: 2,
H0331: 2, H0632: 2,
H0486: 2, H0590: 2,
H0046: 2, H0051: 2,
S0440: 2, H0509: 2,
L0783: 2, L0663: 2,
H0555: 2, L0748: 2,
L0439: 2, L0745: 2,
L0758: 2, L0362: 2,
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S0442: 1, S0408: 1,
S0132: 1, S0476: 1,
S0300: 1, S6022: 1,
H0392: 1, H0537: 1,
H0438: 1, H0587: 1,
H0497: 1, H0270: 1,
T0060: 1, H0013: 1,

H0427: 1, L0021: 1,
H0581: 1, H0374: 1,
H0597: 1, H0544: 1,
H0546: 1, H0569: 1,
H0123: 1, L0471: 1,
H0012: 1, S0388: 1,
H0275: 1, H0375: 1,
H0286: 1, S0003: 1,
L0194: 1, T0006: 1,
H0644: 1, H0032: 1,
H0674: 1, H0361: 1,
S0036: 1, H0038: 1,
H0040: 1, H0551: 1,
H0413: 1, L0475: 1,
H0561: 1, S0438: 1,
H0131: 1, H0641: 1,
L0369: 1, L0762: 1,
L0637: 1, L0800: 1,
L0662: 1, L0649: 1,
L0388: 1, L0774: 1,
L0775: 1, L0651: 1,
L0653: 1, L0809: 1,
L0789: 1, L0666: 1,
L0665: 1, S0374: 1,
S0126: 1, H0435: 1,
H0659: 1, H0672: 1,
S0378: 1, H0518: 1,
S0392: 1, S3014: 1,
L0751: 1, L0779: 1,
L0780: 1, L0731: 1,

HVVCN54	HVVCN54R	2125	2 - 460	4300		L0759: 1, S0260: 1, L0599: 1, S0026: 1, H0423: 1, S0412: 1 and H0506: 1.
HVVCN66	HVVCN66R	2126	3 - 212	4301		
HVVCO13	HVVCO13R	2127	2 - 352	4302	Gln-61 to Pro-68, Gln-103 to Ala-108, Tyr-111 to Thr-117.	
HVVCO16	HVVCO16R	2128	170 - 334	4303	Val-28 to Ser-33.	
HVVCO87	HVVCO87R	2129	3 - 404	4304	Lys-54 to Ala-67, Arg-77 to Thr-86.	
HVVCP41	HVVCP41R	2130	2 - 442	4305		
HVVCP88	HVVCP88R	2131	3 - 449	4306	Ala-35 to Ala-41, Pro-46 to Gly-54, Pro-67 to Gly-87.	
HVVCQ05	HVVCQ05R	2132	11 - 184	4307	Ser-23 to Lys-30.	
HVVCQ49	HVVCQ49R	2133	3 - 605	4308	Glu-74 to Arg-79, Glu-117 to Arg-134.	
HVVCQ70	HVVCQ70R	2134	10 - 144	4309	Arg-30 to Phe-36.	H0672: 2 and L0518: 1.
HVVCQ93	HVVCQ93R	2135	1 - 630	4310		
HVVCS28	HVVCS28R	2136	105 - 335	4311		
HVVCS32	HVVCS32R	2137	35 - 217	4312	Arg-11 to Pro-17, Ser-33 to Lys-46.	
HVVCT54	HVVCT54R	2138	237 - 698	4313	His-1 to Asn-8, Arg-10 to Gly-16, Tyr-50 to Gly-56.	L0659: 55, H0644: 23, L0748: 18, L0666: 17, L0747: 17, H0622: 16, S0194: 16, H0553: 15,

L0662: 15, S0126: 15,
L0740: 15, L0754: 14,
H0031: 13, H0593: 12,
L0649: 11, H0435: 11,
L0757: 11, H0124: 10,
S0250: 9, S0356: 8,
H0672: 7, L0362: 7,
L0779: 6, S0210: 5,
L0771: 5, L0663: 5,
L0664: 5, H0547: 5,
L0750: 5, L0601: 5,
S0360: 4, H0619: 4,
L0764: 4, L0804: 4,
L0775: 4, S0358: 3,
H0486: 3, H0628: 3,
H0264: 3, L0451: 3,
L0776: 3, L0655: 3,
L0783: 3, H0693: 3,
H0660: 3, S0454: 3,
L0749: 3, L0605: 3,
S0192: 3, H0170: 2,
H0294: 2, S0180: 2,
H0586: 2, H0013: 2,
H0687: 2, H0428: 2,
L0483: 2, H0488: 2,
S0450: 2, H0647: 2,
S0208: 2, L0648: 2,
L0523: 2, L0809: 2,
L0665: 2, H0144: 2,
L0565: 2, H0690: 2,

H0518: 2, H0696: 2, S3012: 2, L0752: 2, L0755: 2, L0731: 2, H0665: 2, H0171: 1, H0656: 1, S0212: 1, S0376: 1, S0410: 1, S0132: 1, H0393: 1, L0717: 1, H0392: 1, H0331: 1, H0485: 1, T0040: 1, T0060: 1, L0021: 1, H0599: 1, T0082: 1, H0618: 1, H0052: 1, H0085: 1, T0110: 1, H0046: 1, H0050: 1, L0471: 1, H0355: 1, S0003: 1, H0615: 1, H0039: 1, L0143: 1, H0111: 1, L0455: 1, S0366: 1, H0135: 1, H0040: 1, H0551: 1, H0100: 1, L0564: 1, H0509: 1, H0517: 1, L0763: 1, L0769: 1, L0772: 1, L0646: 1, L0768: 1, L0375: 1, L0784: 1, L0806: 1, L0805: 1, L0653: 1, L0654: 1, L0517: 1, L0384: 1, L0383: 1, L0647: 1,

HVVCT62	HVVCT62R	2139	340 - 522	4314		L0789: 1, L0791: 1, L0438: 1, H0520: 1, H0689: 1, H0682: 1, H0684: 1, S0152: 1, H0704: 1, H0555: 1, S0432: 1, S3014: 1, S0027: 1, S0028: 1, L0744: 1, L0758: 1, H0595: 1, H0707: 1, S0436: 1, L0591: 1, L0599: 1, S0196: 1, H0422: 1, S0384: 1 and L0600: 1.
HVVCU14	HVVCU14R	2140	365 - 529	4315	Ile-1 to Ser-6, Lys-13 to His-25.	L0748: 18, L0794: 7, L0438: 7, L0777: 7, L0809: 6, L0439: 6, L0756: 6, L0750: 5, L0717: 3, L0770: 3, L0776: 3, L0664: 3, L0747: 3, L0757: 3, S0222: 2, H0013: 2, H0596: 2, H0040: 2, L0769: 2, L0768: 2, L0766: 2, H0672: 2, L0731: 2, L0758: 2, L0591: 2, L0599: 2, H0624: 1, S0342: 1, H0638: 1, S0376: 1, H0549: 1, H0587: 1,

HVVCU50	HVVCU50R	2141	23 - 307	4316	Gln-8 to Lys-13, Glu-32 to Arg-56, Ser-60 to Thr-69.	H0574: 1, H0635: 1, S0049: 1, H00052: 1, T0010: 1, H0288: 1, H0286: 1, H0553: 1, L0455: 1, L0351: 1, H0538: 1, L0763: 1, L0638: 1, L0775: 1, L0659: 1, L0783: 1, L0789: 1, L0663: 1, L0665: 1, H0690: 1, S0152: 1, L0740: 1, L0753: 1 and S0424: 1.	L0747: 16, L0750: 15, L0752: 15, L0769: 9, L0757: 9, L0005: 8, L0775: 8, L0740: 8, L0774: 6, L0471: 5, H0087: 5, L0758: 5, H0656: 4, L0772: 4, L0731: 4, L0588: 4, H0657: 3, H0341: 3, H0638: 3, S0007: 3, S0046: 3, H0599: 3, S0049: 3, H0009: 3, H0412: 3, L0776: 3, L0783: 3, S0374: 3, H0660: 3, H0672: 3, L0749: 3, L0755: 3, H0352: 3, S0222: 2, H0441: 2, H0251: 2,

H0309: 2, H0620: 2, H0266: 2, T0067: 2, H0494: 2, L0761: 2, L0651: 2, L0518: 2, S0126: 2, H0670: 2, S0328: 2, H0521: 2, S3012: 2, S0206: 2, L0745: 2, L0753: 2, L0759: 2, L0596: 2, L0608: 2, H0423: 2, H0395: 1, T0002: 1, H0685: 1, S0218: 1, S0116: 1, S0110: 1, H0484: 1, H0661: 1, H0663: 1, H0306: 1, H0402: 1, S0356: 1, S0442: 1, S0358: 1, S0360: 1, H0208: 1, S0045: 1, H0393: 1, H0351: 1, H0392: 1, H0333: 1, H0574: 1, L0623: 1, T0039: 1, T0040: 1, L0586: 1, H0250: 1, H0156: 1, H0575: 1, S0346: 1, H0318: 1, H0581: 1, H0421: 1, H0597: 1, H0546: 1, H0545: 1, H0046: 1, H0041: 1, H0081: 1, H0012: 1,

H0023: 1, S0388: 1,
H0275: 1, H0356: 1,
S0023: 1, H0594: 1,
H0188: 1, H0428: 1,
H0535: 1, H0674: 1,
S0036: 1, H0135: 1,
H0063: 1, H0413: 1,
H0056: 1, T0004: 1,
H0100: 1, T0042: 1,
H0334: 1, H0641: 1,
H0647: 1, S0144: 1,
S0344: 1, L0763: 1,
L0371: 1, L0637: 1,
L0764: 1, L0768: 1,
L0364: 1, L0376: 1,
L0524: 1, L0632: 1,
L0655: 1, L0659: 1,
L0782: 1, L0809: 1,
L0666: 1, L0663: 1,
H0144: 1, L0565: 1,
H0691: 1, H0547: 1,
H0593: 1, H0690: 1,
H0684: 1, H0579: 1,
S0044: 1, H0631: 1,
S0028: 1, L0742: 1,
L0748: 1, L0746: 1,
S0031: 1, S0434: 1,
H0667: 1, S0192: 1,
S0276: 1, H0542: 1,
H0422: 1, H0506: 1 and

						L0600: 1.
HVVCV41	HVVCV41R	2142	2 - 310	4317	Glu-1 to Gln-10, Val-74 to Arg-83.	
HVVCV68	HVVCV68R	2143	2 - 244	4318	Pro-12 to Ser-18, Pro-25 to Pro-30, Ala-62 to Ser-70.	
HVVCW75	HVVCW75R	2144	3 - 410	4319	Met-22 to Asp-27, Cys-43 to Trp-50, Asp-79 to Trp-93, Glu-124 to Glu-136.	L0794: 5, H0617: 4, H0486: 3, L0800: 3, L0764: 3, H0672: 3, L0751: 3, S0360: 2, H0188: 2, S0022: 2, L0769: 2, L0803: 2, L0809: 2, L0665: 2, L0361: 2, H0556: 1, H0583: 1, H0657: 1, S0418: 1, L0005: 1, S0354: 1, S0408: 1, S0045: 1, S0046: 1, S6014: 1, H0587: 1, H0333: 1, H0559: 1, H0596: 1, H0673: 1, H0616: 1, H0494: 1, L0761: 1, L0662: 1, L0651: 1, L0659: 1, L0382: 1, L5622: 1, L0663: 1, H0690: 1, H0670: 1, S0152: 1, S0390: 1, L0747: 1, L0777: 1, L0731: 1, L0758: 1, S0436: 1,

HVVCX17	HVVCX17R	2145	124 - 297	4320	Asp-1 to Pro-10.	
						L0592: 1, L0601: 1 and S0424: 1.
						H0052: 15, H0585: 12, L0740: 12, L0439: 11, L0758: 10, L0754: 9, L5286: 8, L0748: 8, H0141: 7, L0666: 7, H0521: 7, L0742: 7, L0749: 7, H0556: 6, S0222: 6, H0494: 6, L0743: 6, L0751: 6, L0757: 6, H0253: 5, T0010: 5, L0803: 5, L0731: 5, H0657: 4, S0360: 4, S0408: 4, S0046: 4, S0278: 4, H0618: 4, S0049: 4, H0617: 4, H0623: 4, S0038: 4, L0764: 4, L0766: 4, L0805: 4, L0809: 4, L0744: 4, L0746: 4, S0040: 3, S0212: 3, L0005: 3, H0441: 3, H0333: 3, H0013: 3, H0599: 3, H0009: 3, H0242: 3, H0644: 3, H0038: 3, H0551: 3, H0412: 3, T0042: 3, L0769: 3, L0804: 3, L0774: 3

L0776: 3, L0792: 3, L0663: 3, L0438: 3, S0044: 3, S0406: 3, S0028: 3, L0745: 3, L0779: 3, L0752: 3, L0362: 3, S6024: 2, H0733: 2, S0132: 2, H0261: 2, H0455: 2, H0438: 2, H0497: 2, H0041: 2, L0471: 2, H0620: 2, H0024: 2, H0051: 2, H0266: 2, H0284: 2, S0250: 2, T0006: 2, S0366: 2, S0036: 2, H0591: 2, S0344: 2, L0369: 2, L5623: 2, L0791: 2, L0665: 2, S0374: 2, H0520: 2, S0126: 2, H0672: 2, H0436: 2, L0741: 2, L0747: 2, L0750: 2, L0756: 2, L0759: 2, S0436: 2, L0591: 2, L0592: 2, L0485: 2, L0608: 2, L0593: 2, L0595: 2, H0667: 2, H0423: 2, L0718: 2, H0149: 1, H0265: 1, H0139: 1, H0716: 1, S0114: 1,

T0049: 1, S0218: 1,
H0341: 1, S0001: 1,
H0484: 1, H0483: 1,
H0254: 1, H0255: 1,
H0662: 1, H0306: 1,
H0638: 1, S0418: 1,
S0420: 1, S0356: 1,
S0442: 1, S0358: 1,
S0444: 1, H0637: 1,
S0007: 1, S0045: 1,
S0476: 1, H0619: 1,
H0393: 1, S6026: 1,
L0717: 1, H0370: 1,
H0586: 1, H0587: 1,
H0574: 1, T0040: 1,
H0069: 1, S0280: 1,
H0036: 1, S0010: 1,
H0390: 1, H0318: 1,
H0581: 1, H0234: 1,
T0103: 1, H0546: 1,
H0545: 1, H0046: 1,
N0006: 1, H0569: 1,
H0081: 1, H0050: 1,
H0047: 1, N0008: 1,
S0388: 1, H0107: 1,
H0083: 1, H0375: 1,
H0188: 1, H0428: 1,
H0039: 1, H0424: 1,
H0213: 1, L0142: 1,
H0181: 1, H0606: 1,

| HVVCX46 | HVVCX46R | 2146 | 35 - 418 | 4321 | Arg-9 to Ile-31,
Gln-38 to Lys-43,
Gln-87 to Ala-92, | H0674: 1, H0135: 1,
H0040: 1, H0616: 1,
H0087: 1, H0264: 1,
H0488: 1, H0268: 1,
H0059: 1, H0100: 1,
L0351: 1, H0334: 1,
H0633: 1, S0142: 1,
H0538: 1, S0426: 1,
L0640: 1, L0637: 1,
L5575: 1, L0800: 1,
L0648: 1, L0794: 1,
L0655: 1, L0657: 1,
L0659: 1, L0542: 1,
L0783: 1, L0382: 1,
L5622: 1, H0144: 1,
H0723: 1, H0519: 1,
H0690: 1, H0435: 1,
S0330: 1, H0539: 1,
S0454: 1, S0404: 1,
H0555: 1, S3014: 1,
L0780: 1, L0755: 1,
H0445: 1, H0595: 1,
S0434: 1, L0588: 1,
L0605: 1, L0366: 1,
H0136: 1, H0542: 1,
H0543: 1, H0422: 1,
H0506: 1 and H0008: 1. |

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HVVCY29	HVVCY29R	2147	2 - 775	4322	Ser-116 to Pro-128. Ser-8 to Ser-14, Asn-68 to Tyr-74, His-80 to Val-91, Glu-141 to Phe-147, Ala-159 to Ser-170, Asp-184 to Gly-199.	
HVVCY55	HVVCY55R	2148	2 - 697	4323	Pro-60 to Gly-72, Gln-89 to Ser-94, Pro-121 to Pro-132, Pro-146 to Pro-166.	
HVVCY60	HVVCY60R	2149	1 - 588	4324	Lys-30 to Glu-36, Lys-55 to Tyr-68, Ile-82 to Asp-87, Trp-115 to Ser-125, Pro-139 to Pro-146.	
HVVCY62	HVVCY62R	2150	3 - 620	4325	Ala-17 to Lys-23, Leu-25 to Ala-35, Gln-71 to Ala-76, Tyr-79 to His-85, Pro-112 to Gly-120, Gly-149 to Tyr-165, Lys-175 to His-181.	
HVVCY75	HVVCY75R	2151	139 - 276	4326		
HVVCY77	HVVCY77R	2152	2 - 598	4327	Glu-179 to Ala-184.	
HVVCZ18	HVVCZ18R	2153	423 - 542	4328		
HVVCZ50	HVVCZ50R	2154	139 - 291	4329		H0412: 26, S0360: 11, S0126: 8, H0014: 7, H0628: 6, H0413: 6,

S0212: 5, S0045: 5,
H0411: 5, H0486: 4,
S0003: 4, S0210: 4,
H0672: 4, L0731: 4,
S0192: 4, S0418: 3,
S0046: 3, H0169: 3,
L0649: 3, S0040: 2,
H0671: 2, H0662: 2,
S0358: 2, S0376: 2,
S0132: 2, H0635: 2,
H0098: 2, H0544: 2,
H0546: 2, H0545: 2,
H0242: 2, H0015: 2,
S0250: 2, H0551: 2,
H0268: 2, H0494: 2,
L0659: 2, L0517: 2,
L0809: 2, H0689: 2,
S0028: 2, H0506: 2,
H0170: 1, H0171: 1,
H0295: 1, H0661: 1,
H0639: 1, H0574: 1,
H0599: 1, L0022: 1,
H0108: 1, H0042: 1,
H0004: 1, H0044: 1,
H0355: 1, H0510: 1,
H0266: 1, S0318: 1,
S0316: 1, S0022: 1,
H0328: 1, H0039: 1,
H0622: 1, H0634: 1,
H0488: 1, H0623: 1,

| HVVDC09 | HVVDC09R | 2155 | 161 - 313 | 4330 | L0564: 1, H0509: 1, L0764: 1, L0662: 1, L0653: 1, H0144: 1, S0374: 1, L0565: 1, H0670: 1, S0380: 1, H0518: 1, H0555: 1, L0748: 1, L0740: 1, L0751: 1, L0754: 1, L0749: 1, L0777: 1, L0362: 1 and S0196: 1. | L0777: 17, L0439: 13, L0731: 9, H0521: 8, S0003: 5, H0547: 5, L0759: 5, L0803: 4, L0748: 4, L0750: 4, L0752: 4, L0351: 3, H0560: 3, L0751: 3, L0749: 3, L0757: 3, H0543: 3, S0134: 2, L0415: 2, S0116: 2, S0358: 2, S0376: 2, H0318: 2, H0581: 2, H0421: 2, H0328: 2, H0090: 2, L0646: 2, L0662: 2, L0768: 2, L0766: 2, S0328: 2, H0215: 2, S0406: 2, L0744: 2, L0608: 2, S0192: 2, H0170: 1, H0171: 1, H0556: 1, |

H0222: 1, H0713: 1, L0420: 1, H0661: 1, H0663: 1, S0360: 1, S0410: 1, H0580: 1, S0007: 1, H0619: 1, H0351: 1, S6022: 1, H0587: 1, H0013: 1, H0427: 1, H0097: 1, H0052: 1, T0110: 1, H0231: 1, L0471: 1, H0266: 1, H0687: 1, S0250: 1, S0214: 1, H0428: 1, T0023: 1, H0628: 1, H0551: 1, H0412: 1, H0494: 1, H0366: 1, S0352: 1, S0440: 1, H0633: 1, H0646: 1, H0538: 1, S0422: 1, S0426: 1, L0369: 1, L0500: 1, L0770: 1, L0637: 1, L0642: 1, L0764: 1, L0381: 1, L0774: 1, L0775: 1, L0375: 1, L0806: 1, L0805: 1, L0654: 1, L0659: 1, L0783: 1, L0666: 1, L0664: 1, L0665: 1, S0374: 1, S0148: 1, H0520: 1, H0519: 1,

HVVDH44	HVVDH44R	2156	2 - 580	4331	H0593: 1, S0126: 1, H0660: 1, H0648: 1, H0672: 1, S0330: 1, H0539: 1, S0152: 1, S0037: 1, L0747: 1, L0605: 1, S0011: 1, H0423: 1, H0422: 1 and H0506: 1.
HVVDM23	HVVDM23R	2157	3 - 545	4332	,
HVVDM31	HVVDM31R	2158	3 - 446	4333	
HVVDM45	HVVDM45R	2159	1 - 390	4334	L0742: 10, H0144: 6, H0265: 5, S0116: 4, S0046: 4, S0222: 4, H0556: 3, H0250: 3, H0052: 3, S0027: 3, L0595: 3, S0212: 2, H0306: 2, S0358: 2, H0013: 2, H0618: 2, H0124: 2, H0100: 2, S0053: 2, H0660: 2, S0330: 2, S3012: 2, L0748: 2, L0439: 2, L0745: 2, L0757: 2, H0445: 2, S0342: 1, H0484: 1, H0638: 1, S0007: 1, H0393: 1, H0437: 1, H0549: 1, H0438: 1, H0486: 1, H0253: 1, H0390: 1,

HVVDM53	HVVDM53R	2160	2 - 241	4335	H0544: 1, H0046: 1, H0009: 1, H0023: 1, N0007: 1, T0010: 1, H0188: 1, H0687: 1, S0003: 1, H0030: 1, S0364: 1, L0455: 1, S0366: 1, H0090: 1, H0038: 1, H0551: 1, H0412: 1, H0059: 1, S0038: 1, H0130: 1, H0641: 1, S0142: 1, S0002: 1, H0517: 1, L0643: 1, L0771: 1, L0794: 1, L0766: 1, L0775: 1, L0654: 1, L0655: 1, L0352: 1, S0008: 1, H0435: 1, H0659: 1, H0658: 1, H0672: 1, H0521: 1, H0522: 1, S0044: 1, H0576: 1, L0779: 1, L0605: 1, L0593: 1, S0026: 1, H0667: 1, S0276: 1, S0196: 1, H0542: 1, H0423: 1 and H0506: 1.
HVVDM83	HVVDM83R	2161	204 - 524	4336	L0766: 9, L0665: 7, L0659: 6, L0761: 5, L0662: 4, L0776: 4,

S0418: 3, S0007: 3,
H0559: 3, H0457: 3,
H0617: 3, L0800: 3,
L0751: 3, L0750: 3,
H0309: 2, L0769: 2,
L0667: 2, L0794: 2,
L0664: 2, L0756: 2,
L0779: 2, L0777: 2,
L0758: 2, H0543: 2,
H0556: 1, S0402: 1,
S0114: 1, H0650: 1,
H0656: 1, S0116: 1,
H0484: 1, H0254: 1,
H0255: 1, S0420: 1,
S0354: 1, S0358: 1,
H0676: 1, L0717: 1,
S0222: 1, H0614: 1,
L0622: 1, H0486: 1,
H0069: 1, H0253: 1,
H0581: 1, H0024: 1,
H0051: 1, H0100: 1,
H0494: 1, H0625: 1,
H0561: 1, S0144: 1,
L0374: 1, L0771: 1,
L0773: 1, L0768: 1,
L0387: 1, L0774: 1,
L0653: 1, L0657: 1,
L0384: 1, L0789: 1,
L0790: 1, L0792: 1,
H0684: 1, H0659: 1,

HVVDN29	HVVDN29R	2162	2 - 685	4337	Asp-50 to Gly-55.	H0670: 1, H0672: 1, H0521: 1, S0027: 1, L0741: 1, L0754: 1, L0749: 1, L0780: 1, H0422: 1 and H0352: 1.
HVVDN77	HVVDN77R	2163	1 - 594	4338		
HVVDP70	HVVDP70R	2164	40 - 354	4339	Lys-24 to Glu-34, Pro-47 to Arg-56, Tyr-77 to Pro-90.	
HVVDQ46	HVVDQ46R	2165	106 - 423	4340	Lys-12 to Thr-18, Glu-20 to Lys-26, Lys-83 to Lys-90.	H0551: 9, L0662: 9, L0471: 8, L0754: 7, L0766: 6, L0666: 6, S0358: 5, L0663: 5, L0750: 5, L0779: 5, S0007: 4, H0373: 4, L0770: 4, L0803: 4, L0777: 4, L0752: 4, L0757: 4, L0758: 4, S0114: 3, S0212: 3, H0673: 3, H0412: 3, L0769: 3, L0805: 3, L0776: 3, L0809: 3, S0126: 3, L0740: 3, H0506: 3, H0657: 2, S0116: 2, S0356: 2, S0360: 2, H0411: 2, H0390: 2, H0318: 2, S0214: 2, H0644: 2, H0617: 2, H0494: 2,

L0761: 2, L0773: 2,
L0649: 2, L0774: 2,
L0653: 2, L0529: 2,
H0435: 2, L0749: 2,
L0731: 2, L0588: 2,
L0608: 2, S0026: 2,
H0543: 2, H0294: 1,
H0650: 1, H0341: 1,
S0354: 1, S0376: 1,
H0580: 1, H0339: 1,
H0208: 1, S0132: 1,
H0640: 1, H0369: 1,
H0438: 1, H0574: 1,
H0486: 1, H0101: 1,
H0427: 1, H0097: 1,
H0575: 1, H0037: 1,
H0230: 1, H0052: 1,
L0040: 1, H0544: 1,
H0545: 1, H0086: 1,
H0009: 1, S0024: 1,
H0510: 1, S0250: 1,
H0428: 1, H0166: 1,
H0102: 1, H0560: 1,
S0294: 1, H0509: 1,
S0150: 1, H0633: 1,
H0647: 1, L0631: 1,
L0646: 1, L0764: 1,
L0804: 1, L0806: 1,
L0606: 1, L0657: 1,
L0659: 1, L0636: 1,

HVVDQ49	HVVDQ49R	2166	2 - 103	4341	L0783: 1, L0382: 1, L0789: 1, L0664: 1, L0665: 1, H0593: 1, H0690: 1, H0682: 1, H0684: 1, H0648: 1, H0672: 1, H0539: 1, H0521: 1, H0555: 1, H0478: 1, L0609: 1, L0744: 1, L0748: 1, L0747: 1, L0755: 1, H0445: 1, H0343: 1, L0581: 1, H0653: 1 and H0352: 1.	H0521: 7, H0052: 6, H0622: 5, L0646: 5, H0617: 4, L0662: 4, L0659: 4, H0556: 3, H0341: 3, H0484: 3, S0358: 3, H0580: 3, H0551: 3, L0369: 3, L0657: 3, L0664: 3, H0670: 3, S0328: 3, H0445: 3, L0603: 3, H0583: 2, S0212: 2, S0376: 2, S0007: 2, S0045: 2, S0046: 2, S0132: 2, H0438: 2, H0586: 2, H0486: 2, H0618: 2, S0474: 2, S0049: 2, H0545: 2,

H0268: 2, H0494: 2, H0509: 2, H0647: 2, L5565: 2, L0645: 2, L0764: 2, L0666: 2, L0665: 2, H0520: 2, H0689: 2, H0658: 2, S0152: 2, S0406: 2, S3014: 2, L0439: 2, L0751: 2, L0754: 2, L0750: 2, L0758: 2, S0434: 2, L0596: 2, L0581: 2, L0595: 2, L0601: 2, S6024: 1, H0294: 1, H0657: 1, H0656: 1, L0415: 1, H0669: 1, H0671: 1, S0356: 1, S0354: 1, S0360: 1, S0410: 1, H0340: 1, S0476: 1, S0278: 1, H0549: 1, H0550: 1, H0370: 1, H0587: 1, H0497: 1, H0643: 1, H0257: 1, H0318: 1, H0457: 1, H0041: 1, H0123: 1, H0024: 1, H0071: 1, H0375: 1, H0290: 1, H0292: 1, H0428: 1, L0142: 1, S0036: 1, H0063: 1, H0087: 1,

HVVDS12	HVVDS12R	2167	1 - 732	4342	H0264: 1, H0059: 1, H0100: 1, S0448: 1, S0450: 1, S0440: 1, H0646: 1, S0144: 1, S0002: 1, L0762: 1, L0640: 1, L0639: 1, L0637: 1, L0372: 1, L0643: 1, L0771: 1, L0773: 1, L0648: 1, L0386: 1, L0774: 1, L0775: 1, L0375: 1, L0376: 1, L0378: 1, L0806: 1, L0653: 1, L0776: 1, L0782: 1, L0383: 1, L0791: 1, H0693: 1, H0547: 1, H0519: 1, H0435: 1, H0660: 1, H0672: 1, S0330: 1, H0696: 1, H0134: 1, H0478: 1, S0028: 1, L0743: 1, L0745: 1, L0747: 1, L0749: 1, L0731: 1, S0436: 1, L0593: 1, H0667: 1, H0543: 1, H0423: 1 and H0352: 1.
HVVDS21	HVVDS21R	2168	2 - 730	4343	AR104: 17, AR089: 10, AR096: 10, AR061: 8, AR060: 4, AR055:

HVVDS35	HVVDS35R	2169	2 - 640	4344	4	
						S0412: 22, L0662: 19, L0777: 14, S0010: 11, S0222: 9, S6028: 9, L0750: 9, T0010: 8, L0659: 8, L0747: 8, L0756: 8, L0663: 7, L0439: 7, H0051: 6, L0518: 6, L0754: 6, L0752: 6, S0280: 5, H0575: 5, S0358: 4, S0346: 4, L0753: 4, H0170: 3, H0662: 3, S0360: 3, H0427: 3, L0471: 3, H0373: 3, L0638: 3, L0637: 3, L0764: 3, L0774: 3, L0809: 3, L0666: 3, S0310: 3, H0672: 3, H0696: 3, L0731: 3, H0506: 3, H0713: 2, S0408: 2, H0411: 2, H0455: 2, H0574: 2, S0414: 2, H0486: 2, H0036: 2, S0049: 2, H0052: 2, H0327: 2, H0687: 2, H0428: 2, H0553: 2, H0644: 2, H0038: 2, L0520: 2,

L0762: 2, L0770: 2, L0653: 2, L0517: 2, S0044: 2, L0442: 1, H0583: 1, L0443: 1, S0110: 1, S0282: 1, S0400: 1, H0661: 1, S0348: 1, S0356: 1, S0444: 1, H0329: 1, S0007: 1, H0619: 1, S6026: 1, S0300: 1, L0717: 1, S6022: 1, H0550: 1, H0592: 1, H0587: 1, H0599: 1, H0042: 1, H0590: 1, H0318: 1, H0309: 1, H0545: 1, H0563: 1, H0564: 1, H0123: 1, H0019: 1, S0050: 1, L0163: 1, S0388: 1, H0356: 1, H0328: 1, H0688: 1, H0039: 1, T0023: 1, H0031: 1, H0111: 1, H0169: 1, S0364: 1, L0455: 1, H0135: 1, H0163: 1, T0067: 1, T0069: 1, T0004: 1, H0100: 1, S0112: 1, L0370: 1, L0598: 1, L0769: 1, L0630: 1, L0800: 1,

HVVDT25	HVVDT25R	2170	231 - 353	4345	Thr-35 to Asn-41.	L0648: 1, L0363: 1, L0768: 1, L0649: 1, L0803: 1, L0775: 1, L0375: 1, L0651: 1, L0784: 1, L0523: 1, L0805: 1, L0776: 1, L0527: 1, L0657: 1, L0635: 1, L0783: 1, L0789: 1, L0532: 1, L0664: 1, H0691: 1, T0068: 1, S0148: 1, H0693: 1, H0520: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, S0380: 1, S0174: 1, H0555: 1, L0612: 1, L0743: 1, L0748: 1, L0751: 1, L0749: 1, L0779: 1, L0759: 1, L0689: 1, S0434: 1, L0604: 1, L0366: 1, S0106: 1 and S0021: 1.		

HVVDT29	HVVDT29R	2171	109 - 471	4346		
HVVDT44	HVVDT44R	2172	2 - 460	4347	Glu-11 to Arg-17, Arg-66 to Pro-79, Ser-104 to Gln-112, Ser-116 to Ser-125.	L0748: 11, L0758: 10, L0747: 8, L0439: 7, H0144: 6, L0805: 5, L0662: 4, H0341: 3, H0052: 3, L0794: 3, L0803: 3, L0809: 3, H0672: 3, L0741: 3, L0752: 3, H0619: 2, S0222: 2, H0013: 2, H0014: 2, H0266: 2, H0553: 2, L0455: 2, H0591: 2, L0770: 2, L0646: 2, L0764: 2, L0666: 2, L0665: 2, H0547: 2, S0126: 2, L0596: 2, L0589: 2, L0605: 2, H0543: 2, H0423: 2, H0624: 1, H0556: 1, H0686: 1, S0040: 1, H0717: 1, H0671: 1, S0476: 1, L0717: 1, H0411: 1, H0586: 1, H0333: 1, H0574: 1, L0021: 1, H0575: 1, H0618: 1, S0010: 1, H0318: 1, H0544: 1, H0009: 1, H0050: 1, L0471: 1, L0163: 1, S6028: 1,

| HVVDU49 | HVVDU49R | 2173 | 328 - 600 | 4348 | Asn-1 to Leu-6. | S0022: 1, S0214: 1, H0628: 1, L0456: 1, S0366: 1, S0036: 1, H0090: 1, H0038: 1, H0040: 1, H0551: 1, H0264: 1, H0059: 1, S0112: 1, T0041: 1, H0647: 1, H0652: 1, S0426: 1, L0763: 1, L0638: 1, L0796: 1, L0630: 1, L0768: 1, L0649: 1, L0774: 1, L0378: 1, L0653: 1, L0657: 1, L0659: 1, L0783: 1, L0647: 1, L0791: 1, L0663: 1, L0664: 1, S0053: 1, H0519: 1, H0539: 1, H0696: 1, S0406: 1, H0555: 1, H0627: 1, L0744: 1, L0754: 1, L0746: 1, L0759: 1, S0031: 1, L0584: 1, L0608: 1, L0594: 1, S0026: 1, H0665: 1, H0136: 1, H0216: 1 and H0422: 1. | H0672: 2 and S6028: 1. |

HVVDW02	HVVDW02R	2174	3 - 266	4349		
HVVDW61	HVVDW61R	2175	2 - 502	4350	Ser-1 to Pro-9.	
HVVDX40	HVVDX40R	2176	294 - 455	4351		
HVVDX90	HVVDX90R	2177	14 - 511	4352		
HWHHD07	HWHHD07R	2178	2 - 391	4353		
HWLAC51	HWLAC51R	2179	11 - 178	4354		
HWLJR51	HWLJR51R	2180	167 - 343	4355		L0766: 3, H0651: 2, H0686: 1, H0656: 1, S0358: 1, L0773: 1, L0775: 1, L0657: 1, L0809: 1, L0792: 1 and L0731: 1.
HWLME48	HWLME48R	2181	3 - 197	4356	Lys-1 to Asp-8, Lys-41 to Gln-50.	S0152: 7, L0601: 4, H0013: 3, H0551: 3, H0264: 3, H0521: 3, S0046: 2, H0050: 2, H0266: 2, S0022: 2, H0031: 2, H0644: 2, H0494: 2, H0519: 2, H0556: 1, S0040: 1, T0049: 1, S0001: 1, S0356: 1, S0354: 1, S0376: 1, S0045: 1, S0132: 1, H0549: 1,

HWLVY65	HWLVY65R	2182	209 - 373	4357	H0550: 1, H0486: 1, T0039: 1, T0040: 1, S0280: 1, H0042: 1, H0575: 1, T0082: 1, H0421: 1, L0471: 1, H0373: 1, H0051: 1, H0355: 1, H0615: 1, H0622: 1, L0483: 1, S0364: 1, H0591: 1, H0268: 1, H0561: 1, S0210: 1, L0364: 1, L0649: 1, L0538: 1, L0659: 1, S0428: 1, H0144: 1, L0602: 1, S0390: 1, S0028: 1, L0758: 1, S0434: 1, L0485: 1 and H0543: 1.
HWMIB35	HWMIB35R	2183	1 - 435	4358	Cys-6 to Ser-12, Gln-27 to Glu-32, Arg-52 to Arg-67, Asp-140 to Asp-145.
HWNFO25	HWNFO25R	2184	43 - 210	4359	Thr-26 to Ile-34.

HWWEF90	HWWEF90R	2185	1 - 300	4360	A

[0040]   The first column in Table 1 provides a unique "Clone ID NO:Z" for a cDNA clone related to each contig sequence disclosed in Table 1. This clone ID references the cDNA clone which contains at least the 5' most sequence of the assembled contig, and at least a portion of SEQ ID NO:X was determined by directly sequencing the referenced clone. The reference clone may have more sequence than described in the sequence listing or the clone may have less. In the vast majority of cases, however, the clone is believed to encode a full-length polypeptide. In the case where a clone is not full-length, a full-length cDNA can be obtained by methods known in the art and/or as described elsewhere herein.

[0041]   The second column in Table 1 provides a unique "Contig ID" identification for each contig sequence. The third column provides the "SEQ ID NO:X" identifier for each of the ovarian associated contig polynucleotide sequences disclosed in Table 1. The fourth column, "ORF (From-To)", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence "SEQ ID NO:X" that delineate the preferred open reading frame (ORF) shown in the sequence listing and referenced in Table 1, column 5, as SEQ ID NO:Y. Where the nucleotide position number "To" is lower than the nucleotide position number "From", the preferred ORF is the reverse complement of the referenced polynucleotide sequence.

[0042]   The fifth column in Table 1 provides the corresponding SEQ ID NO:Y for the polypeptide sequence encoded by the preferred ORF delineated in column 4. In one embodiment, the invention provides an amino acid sequence comprising, or alternatively consisting of, a polypeptide encoded by the portion of SEQ ID NO:X delineated by "ORF (From-To)". Also provided are polynucleotides encoding such amino acid sequences and the complementary strand thereto.

[0043]   Column 6 in Table 1 lists residues comprising epitopes contained in the polypeptides encoded by the preferred ORF (SEQ ID NO:Y), as predicted using the algorithm of Jameson and Wolf, (1988) Comp. Appl. Biosci. 4:181-186. The Jameson-Wolf antigenic analysis was performed using the computer program PROTEAN (Version 3.11 for the Power MacIntosh, DNASTAR, Inc., 1228 South Park Street Madison, WI). In specific embodiments, polypeptides of the invention comprise, or alternatively consist of, at least one, two, three, four, five or more of the predicted epitopes as described in Table 1. It

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will be appreciated that depending on the analytical criteria used to predict antigenic determinants, the exact address of the determinant may vary slightly.

[0044]   Column 7 in Table 1 provides an expression profile and library code: count for each of the contig sequences (SEQ ID NO:X) disclosed in Table 1, which can routinely be combined with the information provided in Table 4 and used to determine the normal or diseased tissues, cells, and/or cell line libraries which predominantly express the polynucleotides of the invention. The first number in column 7 (preceding the colon), represents the tissue/cell source identifier code corresponding to the code and description provided in Table 4. For those identifier codes in which the first two letters are not "AR", the second number in column 7 (following the colon) represents the number of times a sequence corresponding to the reference polynucleotide sequence was identified in the tissue/cell source. Those tissue/cell source identifier codes in which the first two letters are "AR" designate information generated using DNA array technology. Utilizing this technology, cDNAs were amplified by PCR and then transferred, in duplicate, onto the array. Gene expression was assayed through hybridization of first strand cDNA probes to the DNA array. cDNA probes were generated from total RNA extracted from a variety of different tissues and cell lines. Probe synthesis was performed in the presence of ^{33}P dCTP, using oligo(dT) to prime reverse transcription. After hybridization, high stringency washing conditions were employed to remove non-specific hybrids from the array. The remaining signal, emanating from each gene target, was measured using a Phosphorimager. Gene expression was reported as Phosphor Stimulating Luminescence (PSL) which reflects the level of phosphor signal generated from the probe hybridized to each of the gene targets represented on the array. A local background signal subtraction was performed before the total signal generated from each array was used to normalize gene expression between the different hybridizations. The value presented after "[array code]:" represents the mean of the duplicate values, following background subtraction and probe normalization. One of skill in the art could routinely use this information to identify normal and/or diseased tissue(s) which show a predominant expression pattern of the corresponding polynucleotide of the invention or to identify polynucleotides which show predominant and/or specific tissue and/or cell expression. The sequences disclosed herein have been determined to be

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predominantly expressed in ovarian tissues, including normal and diseased ovarian tissues (See Table 1, column 7 and Table 4).

[0045]   Column 8 in Table 1 provides a chromosomal map location for certain polynucleotides of the invention. Chromosomal location was determined by finding exact matches to EST and cDNA sequences contained in the NCBI (National Center for Biotechnology Information) UniGene database. Each sequence in the UniGene database is assigned to a "cluster"; all of the ESTs, cDNAs, and STSs in a cluster are believed to be derived from a single gene. Chromosomal mapping data is often available for one or more sequence(s) in a UniGene cluster; this data (if consistent) is then applied to the cluster as a whole. Thus, it is possible to infer the chromosomal location of a new polynucleotide sequence by determining its identity with a mapped UniGene cluster.

[0046]   A modified version of the computer program BLASTN (Altshul et al., J. Mol. Biol. 215:403-410 (1990), and Gish et al., Nat. Genet. 3:266-272 (1993)) was used to search the UniGene database for EST or cDNA sequences that contain exact or near-exact matches to a polynucleotide sequence of the invention (the 'Query'). A sequence from the UniGene database (the 'Subject') was said to be an exact match if it contained a segment of 50 nucleotides in length such that 48 of those nucleotides were in the same order as found in the Query sequence. If all of the matches that met this criteria were in the same UniGene cluster, and mapping data was available for this cluster, it is indicated in Table 1 under the heading "Cytologic Band". Where a cluster had been further localized to a distinct cytologic band, that band is disclosed; where no banding information was available, but the gene had been localized to a single chromosome, the chromosome is disclosed.

[0047]   Once a presumptive chromosomal location was determined for a polynucleotide of the invention, an associated disease locus was identified by comparison with a database of diseases which have been experimentally associated with genetic loci. The database used was the Morbid Map, derived from OMIM™ (supra). If the putative chromosomal location of a polynucleotide of the invention (Query sequence) was associated with a disease in the Morbid Map database, an OMIM reference identification number was noted in column 9, Table 1, labeled "OMIM Disease Reference(s)". Table 5 is a key to the OMIM reference identification numbers (column 1), and provides a description of the associated disease in Column 2.

TABLE 2

Clone ID NO:Z	Contig ID:	SEQ ID NO:X	Analysis Method	PFam/NR Description	PFam/NR Accession Number	Score/Percent Identity	NT From	NT To
HOVCD34	396327	11	blastx.2	(AK000844) unnamed protein product [Homo sapiens]	dbj|BAA91396.1|	58%	319	167
HEBGD58	498281	12	blastx.2	eggshell protein - fluke (Schistosoma haematobium) (subclone 1	pir|A44805|A44805	74%	3	98
HETCD42	533532	13	blastx.2	actin capping protein alpha subunit [Homo sapiens]	gb|AAA88848.1|	100%	90	947
HTXKC18	535854	14	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	62%	873	676
HLDRK20	553765	15	blastx.2	complement factor B [Homo sapiens]	emb|CAA51389.1|	91%	150	1283
H2MBD33	558474	16	blastx.2	NBR2 PROTEIN (NEXT TO BRCA1 GENE 2 PROTEIN).	sp|O15453|NBR2_HUMAN	100%	138	290
HSYBX61	558708	17	blastx.2	N-cadherin [Homo sapiens]	gb|AAA03236.1|	98%	3	515
HELHC03	562745	18	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb|AAF22026.1|AF1 18094_21	67% / 81%	1063 / 1154	905 / 1089
HOFMP70	585385	19	blastx.2	precursor polypeptide	emb|CAA33261.1|	75%	120	347

			(AA -21 to 782) [Homo sapiens]				
HSKNZ25	585675	20	blastx.2	unknown protein [Homo sapiens]	gb|AAA88038.1|	63%	522	686
HDPFK39	588869	21	blastx.2	leukocyte adhesion glycoprotein precursor [Homo sapiens]	gb|AAA59491.1|	99% / 90%	79 / 681	687 / 746
HL1AB07	638220	22	blastx.2	(AF151884) CGI-126 protein [Homo sapiens]	gb|AAD34121.1|AF1 51884 1	100% / 91%	2 / 463	466 / 498
HHGAS83	654868	23	blastx.2	(AF044671) MM46 [Homo sapiens]	gb|AAD02337.1|	100%	133	393
HTSGU37	704405	24	blastx.2	(AF019406) collagen type IX alpha 2 chain [Homo sapiens]	gb|AAC33512.1|	100%	117	434
						50%	192	434
						51%	189	431
						40%	12	434
						51%	192	431
						52%	195	431
						53%	192	431
						47%	156	431
						54%	189	431
						46%	156	431
						52%	195	431
						47%	195	431
						48%	192	431
						38%	15	431
						48%	192	431
						50%	195	434
						46%	192	431
						37%	15	431
						49%	195	431

431	195	48%
431	201	50%
431	24	37%
431	189	48%
431	189	48%
431	180	44%
434	195	46%
425	192	43%
461	195	40%
434	195	43%
413	195	48%
395	45	34%
365	192	44%
431	195	36%
347	192	47%
502	395	47%
490	395	59%
481	383	44%
472	401	52%
481	401	46%
481	383	38%
481	395	43%
481	383	40%
481	383	38%
502	380	33%
487	422	47%
457	419	61%
432	331	29%
218	430	52%
133	249	37%

H2LAN34	705692	25	blastx.2	unnamed protein product [unidentified]	emb|CAB42187.1|	38%	240	100
						50%	471	418
						32%	501	421
HPMBZ40	711500	26	blastx.2	fusion protein: ubiquitin (bases 43_513); ribosomal protein S27a (bases 217_532) [Rattus norvegicus]	emb|CAA57432.1|	64%	14	199
						87%	402	563
HLYEP52	732342	27	blastx.2	tyrosine kinase activator protein 1 (TKA-1) [Homo sapiens]	emb|CAA90511.1|	95%	101	580
						92%	585	1007
						51%	149	547
						35%	619	1008
						32%	619	1008
						38%	775	846
HTTEC47	745343	28	blastx.2	unknown protein [Homo sapiens]	gb|AAA88038.1|	73%	696	232
						77%	229	20
						63%	902	627
HOFMO90	746416	29	blastx.2	(AF046001) zinc finger transcription factor [Homo sapiens]	gb|AAC78561.1|	89%	122	367
						70%	348	440
HCHND34	762806	30	blastx.2	cytochrome oxidase subunit III [Phoca vitulina]	emb|CAA45263.1|	81%	12	497
						86%	500	778

HAMGI86	785328	31	blastx.2	unnamed protein product [unidentified]	emb|CAB42212.1|	91% 94%	424 611	609 667
HLWCN67	794213	32	blastx.2	(AK014485) putative [Mus musculus]	dbj|BAB29387.1|	80%	386	631
HOFAC09	806819	33	blastx.2	acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb|AAA36470.1|	87% 52%	42 5	812 55
HRDEL61	824886	34	blastx.2	X-linked retinopathy protein [C-terminal, clone XEH.8c] [human, Peptide Partial, 100 aa] [Homo sapiens]	gb|AAB26149.1|	67% 45%	808 644	632 576
HDPOR60	828176	35	blastx.2	(AF151799) CGI-40 protein [Homo sapiens]	gb|AAD34036.1|AF1 51799 1	96% 82%	8 8	1867 1867
HPRTS71	828574	36	blastx.2	rTSbeta [Homo sapiens]	emb|CAA61761.1|	100%	45	458
HOHBI90	828862	37	blastx.2	tyrosine kinase receptor [Homo sapiens]	gb|AAA61243.1|	90% 63% 34% 53%	193 159 268 375	417 281 396 419
HOHAL47	828872	38	blastx.2	pericentriol material 1 [Homo sapiens]	gb|AAA60120.1|	88%	328	879
HYASE58	829298	39	blastx.2	O-6-methylguanine-DNA methyltransferase [Homo sapiens]	gb|AAA59594.1|	99%	74	694
HKAAH95	829958	40	blastx.2	ribosomal protein L22	emb|CAA55204.1|	70%	41	418

HTTIQ02	829981	41	blastx.2	[Rattus norvegicus] activating transcription factor 3 [Homo sapiens]	gb|AAA20506.1|	96%	44	391
HWACG9 1	830195	42	blastx.2	heat shock protein 90, hsp90 [rats, brain, Peptide, 724 aa] [Rattus sp.]	gb|AAB23369.1|	82%	119	610
						93%	88	132
						37%	60	170
						76%	573	611
HUFBX52	830497	43	blastx.2	tenascin X [Homo sapiens]	gb|AAB47488.1|AAB 47488	99%	2	1525
						100%	1525	1785
						29%	20	1255
						26%	20	1114
						30%	20	1033
						27%	17	991
						29%	20	988
						28%	17	934
						25%	20	1096
						27%	8	898
						28%	2	973
						28%	14	856
						27%	20	892
						28%	17	712
						29%	20	712
						24%	365	1150
						24%	20	973
						32%	413	946
						29%	11	907
						24%	2	991
						30%	20	589
						32%	17	589

712	20	29%
601	20	27%
856	2	27%
1111	716	31%
1012	176	25%
562	176	30%
1096	437	25%
565	92	29%
1135	521	25%
1045	437	23%
1096	434	23%
1231	488	20%
1141	860	25%
1111	557	22%
1153	860	25%
1309	557	24%
1135	809	28%
1117	641	20%
1021	437	27%
604	437	39%
1690	1487	36%
1096	557	27%
1684	1487	28%
1135	788	23%
1309	809	22%
1684	1487	30%
877	638	33%
331	35	29%
1045	455	23%
1684	1487	28%

Clone	No.	SEQ ID	Method	Description	Accession	%		
						27%	1487	1684
						30%	622	825
						25%	1487	1684
						37%	1556	1690
						28%	1487	1684
						23%	1487	1690
						27%	316	501
						48%	1110	1190
						30%	962	1150
						64%	1101	1142
						32%	267	404
						26%	52	498
						52%	1607	1663
						32%	1089	1181
						32%	1089	1181
						22%	650	1027
						53%	1398	1436
						60%	1089	1118
						41%	189	257
						29%	118	255
						37%	979	1083
						29%	1024	1146
						35%	361	480
HWLJE49	831453	44				34%	1050	1175
HLQBT44	832454	45	blastx.2	2A9 peptide [Homo sapiens]	gb|AAA35886.1|	98%	46	315
			blastx.2	precursor polypeptide [Homo sapiens]	emb|CAA28169.1|	100%	175	357
						92%	143	181
HSLGG58	833088	46	blastx.2	(AF096304) putative sterol reductase SR-1	gb|AAD09765.1|	100%	134	997
						97%	1018	1305

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ID				Description	Accession	%	976	1029
HCHBQ33	840756	47	blastx.2	[Homo sapiens] (AB005624) rig-analog DNA-binding protein [Sus scrofa]	dbj|BAA21510.1|	61% 95% 100%	 157 48	1029 480 170
HDTMK30	840862	48	blastx.2	cysteine-rich intestinal protein [Homo sapiens]	gb|AAB61158.1|	100%	123	353
HDPFX64	841088	49	blastx.2	quinone oxidoreductase [Homo sapiens]	gb|AAA60239.1|	100%	404	1096
HODFG71	843485	50	blastx.2	(AF081114) ORF2 [Mus musculus domesticus]	gb|AAC72810.1|	29% 34% 50% 41% 34%	1121 591 281 1188 860	834 301 198 1102 717
HCE3165	844534	51	blastx.2	kinesin-like motor protein KIF1C [Homo sapiens]	gb|AAC52117.1|	100%	11	172
HSAVH65	847355	52	blastx.2	plasmolipin [Rattus norvegicus]	emb|CAA90017.1|	48%	11	382
HBXFT41	847647	53	blastx.2	P26s4 [Cricetinae gen. sp.]	gb|AAB34132.1|	93%	707	805
HBMCM38	847821	54	blastx.2	(AF161356) HSPC093 [Homo sapiens]	gb|AAF28916.1|AF161356_1	55% 71% 59%	406 485 333	266 390 268

						63%	534	502	
HACBO42	849064	55	blastx.2	G-protein coupled receptor, SREB1 - human	pir|JC7287|JC7287	57%	3	368	
HODBF86	859572	56	blastx.2	(AF123880) gag polyprotein [multiple sclerosis associated retrovirus element]	gb|AAD48374.1|	40% 35%	225 542	437 652	
HOABP90	859622	57	blastx.2	(AF089895) cAMP-dependent protein kinase subunit R2 beta [Oryctolagus cuniculus]	gb|AAF00037.1|	97%	628	735	
HE8UE42	862010	58	blastx.2	(AJ224875) glucosyltransferase [Homo sapiens]	emb|CAA12176.1|	99%	15	1610	
HUSJJ59	862481	59	blastx.2	(AF070661) HSPC005 [Homo sapiens]	gb|AAD20967.1|	100%	80	316	
HSSDM07	863515	60	blastx.2	TcD37 homolog [Homo sapiens]	gb|AAF04914.1|U670 85_1	94% 95% 95%	224 647 160	691 1090 225	
HBCBW52	866444	61	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	69%	1498	1202	
HOGAS18	867969	62	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	79%	508	380	
HHSDL18	869701	63	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb|AAF22026.1|AF1 18094_21	65% 61% 67%	590 429 317	721 536 427	

HLDOG81	874506	65	blastx.2	(AF153191) nm23-H7 [Homo sapiens]	gb|AAD34622.1|AF153191 1	100% / 29%	1232 / 1208	798 / 813
HTXQF81	874608	66	blastx.2	A4 protein [Homo sapiens]	gb|AAA35499.1|	100%	173	628
HCRNG90	874787	67	blastx.2	5'-nucleotidase [Homo sapiens]	emb|CAA39271.1|	98%	156	911
HPWCL64	874891	68	blastx.2	SPIN protein [Homo sapiens]	emb|CAA75163.1|	93%	44	643
HWLMV62	874930	69	blastx.2	(AL137608) hypothetical protein [Homo sapiens]	emb|CAB70840.1|	31%	104	397
H2MAC06	874931	70	blastx.2	neutrophil gelatinase associated lipocalin [Homo sapiens]	emb|CAA58127.1|	100%	170	763
HWLRF06	875093	71	blastx.2	GCP170 [Homo sapiens]	dbj|BAA23661.1|	60% / 53%	23 / 3	373 / 383
HODDO41	875352	72	blastx.2	(AF064604) KE03 protein [Homo sapiens]	gb|AAC17109.1|	80%	350	454
HCHMQ74	875371	73	blastx.2	(AK001527) unnamed protein product [Homo sapiens]	dbj|BAA91741.1|	97%	3	440
HT3AI55	875682	74	blastx.2	(AK000219) unnamed protein product [Homo sapiens]	dbj|BAA91018.1|	98%	4	504
HMVBD68	876052	75	blastx.2	catalase [Campylobacter jejuni]	emb|CAA59444.1|	85%	207	103
HOCTA74	876487	76	blastx.2	propionyl-CoA carboxylase [Homo sapiens]	emb|CAA32763.1|	100%	65	292

HISET05	876686	77	blastx.2	(AJ270993) homeobox protein [Homo sapiens]	emb|CAB65909.1|	95% 66%	511 801	849 926
HCRQM22	876696	78	blastx.2	hepatocyte nuclear factor-3/fork head homolog 11B [Homo 1	gb|AAC51129.1|	84%	3	401
HLHTC92	877310	79	blastx.2	neuronal PAS2 [Homo sapiens]	gb|AAB47250.1|	97% 95% 32%.	197 142 482	418 201 574
H2CAA49	879484	80	blastx.2	(AF053651) cellular apoptosis susceptibility protein [Homo sapiens]	gb|AAC35297.1|	100%	954	2108
HETKQ94	880545	81	blastx.2	(AL132954) putative protein [Arabidopsis thaliana]	emb|CAB75750.1|	35% 23% 33%	53 1556 1155	838 2080 1298
HOFMO23	882466	82	blastx.2	(AF089745) FK506-binding protein [Homo sapiens]	gb|AAC78853.1|	95% 54% 46% 52%	14 14 14 194	499 499 454 499
HNTNP58	882787	83	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb|AAF22026.1|AF1 18094_21	62% 60%	2230 2382	2391 2480
HOFNY28	888480	84	blastx.2	AF-1 [Homo sapiens]	gb|AAA16955.1|	63% 62%	18 416	476 658
HE8MQ01	889128	85	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb|AAF22026.1|AF1 18094_21	71%	2699	2490
HE2RG21	891139	86	blastx.2	peptidylprolyl isomerase [Homo sapiens]	emb|CAA37039.1|	100%	59	553
HHENW77	894855	87	blastx.2	vacuolar proton-ATPase subunit M9.2	emb|CAA75571.1|	71%	99	338

HOFNU55	897344	88	blastx.2	[Homo sapiens] (AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj|BAA85438.1|	70%	654	544
HE8TE40	897862	89	blastx.2	Rabin3 [Rattus norvegicus]	gb|AAA67890.1|	87% 93%	152 1086	1114 1532
HNTCH73	900546	90	blastx.2	bone morphogenetic protein 2B [Homo sapiens]	gb|AAA51835.1|	100%	195	1418
HHFBY53	902534	91	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	95% 22% 20% 22% 20%	6 837 801 833 836	128 956 932 940 955
HDPIE44	904763	92	blastx.2	(AF200706) UNC-84A [Caenorhabditis elegans]	gb|AAF15883.1|AF200706_1	47% 39% 25% 42%	1852 170 1375 109	2418 313 1524 171
HHSAX10	904783	93	blastx.2	delta-9 desaturase [Gallus gallus]	emb|CAA42997.1|	71%	9	680
HPIAX83	906066	94	blastx.2	weakly similar to E. nidulans bimA gene product (SP:P17885) [Caenorhabditis elegans]	gb|AAA81143.1|	39% 37% 19% 22% 21% 24%	1167 588 1776 1716 1653 2274	2459 1025 2474 2186 2093 2540
HOFNG28	908746	95	blastx.2	CD59 GLYCOPROTEIN	sp|O62680|CD59_PIG	54%	51	401

			PRECURSOR (MEMBRANE ATTACK COMPLEX 1 (PROTECTIN).				
HOFOB27	96	blastx.2	(AL050283) hypothetical protein [Homo sapiens]	emb|CAB43384.1|	97% 77% 42%	640 380 329	1491 745 427
HHBHJ45	97	blastx.2	initiation factor 2 [Homo sapiens]	gb|AAA67038.1|	100%	11	1498
HHPDV90	98	blastx.2	(AF090942) PRO0657 [Homo sapiens]	gb|AAF24054.1|AF090942_1	53%	1122	874
HWMMQ47	99	blastx.2	(AB029042) ATPase inhibitor precursor [Homo sapiens]	dbj|BAA88422.1|	100% 100%	53 1614	232 1754
HBGNY08	100	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj|BAA85438.1|	95% 100% 100% 100% 77% 90% 84% 44% 33% 35%	423 423 423 423 423 423 421 308 309 332	364 367 367 367 343 364 347 222 229 249
HODGH45	101	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	80%	819	938
HWLKE58	102	blastx.2	(AL031629) similar to RNA recognition motif. (aka RRM, RBD, or 11	emb|CAA20980.2|	52%	275	496

HRADL40	919433	103	blastx.2	dodecenoyl-CoA delta-isomerase [Homo sapiens]	emb|CAA81066.1|	100%	37	942
HOFMP73	919895	104	blastx.2	cathepsin B [Homo sapiens]	gb|AAC37547.1|	85%	113	1129
HOFMS02	920253	105	blastx.2	ATPase subunit 6 [Phoca vitulina]	emb|CAA45262.1|	54%	156	386
HUVHD12	921707	106	blastx.2	inositol polyphosphate 4-phosphatase [Rattus norvegicus]	gb|AAB01069.1|	35% 30% 60%	187 687 43	492 953 102
HMVDQ41	922191	107	blastx.2	(AL137496) hypothetical protein [Homo sapiens]	emb|CAB70771.1|	98% 99%	384 2	809 385
HODGI03	922879	108	blastx.2	replication protein A 14kDa subunit [Homo sapiens]	gb|AAA58350.1|	100%	447	635
HODHD14	922955	109	blastx.2	unknown protein [Homo sapiens]	gb|AAA88036.1|	60%	22	174
HODDC03	925296	110	blastx.2	ORF4 [Rattus norvegicus]	emb|CAA37647.1|	40% 58% 50%	126 344 307	245 433 336
HVCAG04	925735	111	blastx.2	(AF034633) GPR39 [Homo sapiens]	gb|AAC26082.1|	100% 29%	1281 1364	781 1293
HCRCE02	925837	112	blastx.2	putative p150 [Homo sapiens]	gb|AAC51269.1|	47% 50% 31% 40%	1 709 329 876	489 867 607 971
HHERA91	926067	113	blastx.2	(AK000530) unnamed protein product [Homo	dbj|BAA91234.1|	100%	2031	2399

			sapiens]					
HAGDL82	928396	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAAA91205.1|	75% 75%	5 210	208 257
HWBDS34	930484	blastx.2	Similar to S.cerevisiae hypothetical protein L3111 (S59316) [Homo sapiens]	dbj|BAAA13405.1|	99%	57	983
H6ESA39	933568	blastx.2	BCDNA:LD21720 PROTEIN.	sp|Q9XZ25|Q9XZ25	47% 26%	623 14	1150 169
HPCOR06	933678	blastx.2	ORFII [Homo sapiens]	emb|CAA36480.1|	73% 62% 56% 60%	99 310 28 266	266 459 144 310
HTFNO06	933989	blastx.2	(AC009177) unknown protein [Arabidopsis thaliana]	gb|AAF27013.1|AC0 09177_3	39%	95	505
HODFY08	935520	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj|BAAA25253.1|	45%	79	447
HRACK27	935717	blastx.2	(AL133045) hypothetical protein [Homo sapiens]	emb|CAB61372.1|	97%	681	1283
HRACW30	940639	blastx.2	(AF113887) kappa 1 immunoglobulin light chain [Homo sapiens]	gb|AAD29608.1|	93%	79	786
HOFOC32	941969	blastx.2	placental protein Diff33 [Homo sapiens]	emb|CAB09783.1|	84%	84	1502
HTTDM15	942511	blastx	(AL033127) hypothetical protein	emb|CAA21869.1|	27% 20%	62 759	427 959

				Description	Accession	%		
HOVAY63	944031			[Schizosaccharomyces pombe]		32%	965	1048
		124	blastx.2	L1 retroposon, a portion of its ORF2 sequence [Rattus norvegicus]	emb|CAA43593.1|	65%	583	488
						43%	229	125
						34%	492	376
HDPFY41	946502	125	blastx.2	(AL050294) hypothetical protein [Homo sapiens]	emb|CAB43393.1|	94%	624	2072
						88%	1984	2037
						52%	2039	2113
HCOPB92	948608	126	blastx.2	ORF2, encodes a reverse transcriptase homolog [Homo sapiens]	gb|AAB60345.1|	60%	99	182
						51%	2	106
						66%	257	310
						64%	169	243
HBJHO83	948708	127	blastx.2	envelope polyprotein [Mus musculus]	gb|AAA37565.1|	46%	177	365
						45%	64	174
						85%	2	61
HWMEO4	948719	128	blastx.2	(AF038963) RNA helicase [Homo sapiens]	gb|AAD19826.1|	99%	3	1343
HFXIA96	949001	129	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	93%	40	135
HTLGV19	949574	130	blastx.2	human complement C1r [Homo sapiens]	gb|AAA51851.1|	46%	72	539
						36%	604	732
						25%	567	740
HMSAC18	950257	131	blastx.2	(AB023584) reduced expression in cancer [Homo sapiens]	dbj|BAA88923.1|	100%	29	919
HAPRB43	950475	132	blastx.2	(AF124522) tetraspan NET-2 [Homo sapiens]	gb|AAD17317.1|	100%	3	536

						%		
HCCMD55	956895	133	blastx.2	catalase [Campylobacter jejuni]	emb|CAA59444.1|	94%	225	115
HKADF15	960658	135	blastx.2	(AF179370) insulin-like growth factor binding protein 5 protease [Rattus norvegicus]	gb|AAD52683.1|AF179370_1	94% 70% 32%	424 113 9	1551 499 155
HOGES55	961337	136	blastx.2	proline-rich protein [Mus musculus]	gb|AAA53048.1|	31% 33% 33% 33% 33% 27%	515 515 645 809 1099 1099	1117 1117 1397 1117 1452 1557
HKZAJ14	961458	137	blastx.2	(AL133051) hypothetical protein [Homo sapiens]	emb|CAB61378.1|	100%	219	1028
HLHAE14	962362	138	blastx.2	unknown protein [Homo sapiens]	gb|AAA88036.1|	60% 38%	1969 1820	1805 1680
HBCJN16	965190	139	blastx.2	calcyphosine [Homo sapiens]	emb|CAA66609.1|	99%	38	346
HCGAF29	965372	140	blastx.2	(AF083217) WD repeat protein WDR3 [Homo sapiens]	gb|AAD45865.1|AF083217_1	97% 27% 53% 34% 60% 60% 60% 46% 36% 53%	32 473 2270 2226 2269 2273 2272 2269 2226 2270	1660 940 2308 2312 2313 2317 2316 2307 2315 2314

							1600	1665
						47%		
HBJAB02	967807	142	blastx.2	(AK000069) unnamed protein product [Homo sapiens]	dbj|BAA90924.1|	100%	2	1267
HOUCR01	968171	143	blastx.2	similar to D.melanogaster peroxidasin(U11052) [Homo sapiens]	dbj|BAA13219.1|	33% 36% 30%	8 428 8	646 718 241
HDTIG18	968454	144	blastx.2	(AB017644) ubiquitin-conjugating enzyme E2 [Homo sapiens]	dbj|BAA76544.1|	100%	391	1011
HBLGD30	968949	145	blastx.2	preceruloplasmin (EC 1.16.3.1) [Homo sapiens]	gb|AAA51976.1|	100% 40% 41%	1 106 1183	2187 1512 2184
HFIHK04	969387	146	blastx.2	(AK000200) unnamed protein product [Homo sapiens]	dbj|BAA91005.1|	94%	306	151
HE8NQ16	970046	148	blastx.2	F20D12.3 gene product [Caenorhabditis elegans]	gb|AAA81672.1|	38% 36% 25% 25%	359 1259 2021 974	1099 1891 2653 1102
HOFMS34	973010	149	blastx	hPMSR6 [Homo sapiens]	gb|AAA97460.1|	59% 66%	324 552	536 605
HOFOB11	973505	150	blastx.2	15 KD SELENOPROTEIN PRECURSOR.	sp|O60613|SE15_HUMAN	95%	18	503
HTLHN94	974667	151	blastx.2	(AB012955) KIP2 [Homo sapiens]	dbj|BAA33584.1|	99%	444	812
HLDRT31	975754	152	blastx.2	hepatocyte growth	gb|AAA50165.1|	90%	91	639

Clone	No.	SEQ ID	Type	Description	Accession	%		
				factor-like protein [Homo sapiens]	gb|AAA35723.1|	50% 44% 50%	100 100 346	579 579 558
HWLHW86	975771	153	blastx.2	epithelial glycoprotein (EGP) precursor [Homo sapiens]	gb|AAA35723.1|	100%	245	1186
HOFNM53	976051	154	blastx.2	(AL110276) hypothetical protein [Homo sapiens]	emb|CAB53711.1|	37%	498	1094
HDPSE86	976207	155	blastx	(AF086713) rasGAP-activating-like protein [Homo sapiens]	gb|AAD09006.1|	83% 91% 96% 83% 30% 42%	757 1 508 401 361 1	1311 420 774 511 450 42
HHFOE18	976216	156	blastx.2	(AL117664) hypothetical protein [Homo sapiens]	emb|CAB56034.1|	52% 35%	376 14	1275 139
HHFNH27	976968	157	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb|CAA56869.1|	98% 100%	26 3	589 26
HMMBZ81	977264	158	blastx.2	alternatively spliced product using exon 13A [Homo sapiens]	gb|AAB49034.1|	52%	545	369
HSLGF32	977704	159	blastx.2	(AL133063) hypothetical protein [Homo sapiens]	emb|CAB61387.1|	52%	2	250
HODFU73	978812	161	blastx.2	myeloid ecotropic viral integration site-1b	gb|AAA85509.1|	94%	371	652

HNBUA49	978998	blastx.2	[Mus musculus] (AF085356) putative RNA helicase [Homo sapiens]	gb|AAD40191.1|	97% 38%	365 130	1282 183
HVVDU73	979346	blastx.2	ladinin [Homo sapiens]	gb|AAB58817.1|	99%	53	1603
HHESX72	979468	blastx.2	(AK001665) unnamed protein product [Homo sapiens]	dbj|BAA91821.1|	96%	202	480
HOCPY88	979547	blastx.2	(AF035299) similar to GAP binding protein p62do [Homo sapiens]	gb|AAB88182.1|	100%	136	939
HOGDC64	979666	blastx.2	kinase A anchor protein [Homo sapiens]	emb|CAA66000.1|	100% 40% 45%	236 1 40	769 165 204
HSIEA14	980139	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	72% 70% 68%	613 783 667	482 673 620
HSPSY43	980269	blastx.2	alphaII spectrin [Rattus norvegicus]	emb|CAA62350.1|	100%	937	1659
HSXBH24	981029	blastx.2	(AF181645) BcDNA.GH12144 [Drosophila melanogaster]	gb|AAD55431.1|AF1 81645_1	44% 36% 28% 26% 31% 22% 35% 23%	301 1207 1684 1702 1609 1711 1819 1867	1263 2148 2040 2067 1896 2061 1962 2157
HOFAE61	981108	blastx.2	predicted using Genefinder; Similarity to E.coli guanosine-3'	emb|CAB05030.1|	59% 71% 50%	173 5 727	430 88 822

				1 [Caenorhabditis elegans]				
HCFOF82	981272	171	blastx.2	(AL133558) hypothetical protein [Homo sapiens]	emb|CAB63713.1|	98%	2	901
HOCMT79	981309	172	blastx.2	similar to yeast Sec6p, Swiss-Prot Accession Number P32844; 1 1 norvegicus]	gb|AAA85505.1|	94% 96%	481 2	1413 481
HKAEI03	981319	173	blastx.2	Wiskott-Aldrich Syndrome Protein [Mus musculus]	gb|AAC52556.1|	35% 39% 40% 55% 34%	392 233 407 306 288	6 6 300 253 211
HOCPO31	981593	174	blastx.2	(AF015037) endooligopeptidase A related protein; EOPA related protein [Oryctolagus cuniculus]	gb|AAB99905.1|	79%	381	812
HAOTG88	981606	175	blastx.2	No definition line found [Escherichia coli]	gb|AAC43132.1|	100%	217	2
HVCAH21	981768	176	blastx.2	(AF044956) NADH:ubiquinone oxidoreductase B22 subunit [Homo sapiens]	gb|AAD42057.1|AF0 44956_1	100%	80	616
HFPCK56	981812	177	blastx.2	(AF099664) Cdc42 effector protein 4 [Homo sapiens]	gb|AAD16299.1|	88%	3	125

HAOSJ58	981859	178	blastx.2	(AJ271784) chromokinesin. [Homo sapiens]	emb|CAB75427.1|	87%	24	482
HOPJT48	981862	179	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj|BAA85438.1|	95%	321	250
						91%	318	247
						95%	316	245
						100%	350	285
						100%	349	284
						100%	348	283
						100%	345	280
						100%	347	282
						100%	346	281
						100%	342	277
						100%	344	279
						100%	343	278
						100%	340	275
						100%	339	274
						100%	341	276
						100%	336	271
						100%	338	273
						100%	337	272
						100%	335	270
						100%	333	268
						100%	334	269
						100%	330	265
						100%	331	266
						100%	332	267
						100%	327	262
						100%	328	263
						100%	329	264

Clone	SeqID	No.	Program	Description	Accession	%		
						100%	324	259
						100%	325	260
						91%	313	242
						88%	318	241
						84%	316	239
						64%	318	217
HCFAV61	981914	180	blastx.2	(AK000541) unnamed protein product [Homo sapiens]	dbj|BAA91241.1|	99%	54	1091
HOVJY54	982032	182	blastx.2	similar to cuticle collagen [Caenorhabditis elegans]	emb|CAA91932.1|	36%	593	156
						33%	763	578
						37%	763	635
						29%	1088	942
HE8MM52	982197	184	blastx.2	(AL023828) cDNA EST yk289g5.5 comes from this gene; cDNA EST 1 1 yk653f1.5 comes from this gene; cDNA EST EMBL:C07875 comes from th	emb|CAA19455.1|	48%	628	1137
						46%	121	552
HJBCC19	982465	185	blastx.2	(AK000516) unnamed protein product [Homo sapiens]	dbj|BAA91222.1|	99%	503	949
						90%	8	157
HODAA93	982618	186	blastx.2	(AJ224979) MTMR1 [Homo sapiens]	emb|CAA12271.1|	96%	63	737
						74%	698	790
HSPSI74	982764	187	blastx.2	L6 [Homo sapiens]	gb|AAA36158.1|	100%	100	705
HCEHZ42	983008	188	blastx.2	unknown [murine herpesvirus 68]	gb|AAB66420.1|	32%	2124	3170
						38%	1167	1451
						38%	1167	1451

					38%	1167	1451
					38%	1167	1451
					38%	1167	1451
					32%	2127	2414
					39%	2140	2304
					35%	94	375
					35%	94	375
					35%	94	375
					37%	116	334
					37%	116	334
					37%	116	334
					37%	116	334
					34%	620	817
					34%	620	817
					34%	620	817
					34%	620	817
					34%	620	817
					37%	7	135
					37%	7	135
					38%	1234	1422
					38%	1234	1422
					38%	1234	1422
HDPVU15	983592	189	blastx.2	replication factor C, 37-kDa subunit [Homo sapiens]	gb|AAB09785.1|	100%	72	686
						100%	685	954
						100%	1025	1138
						100%	1216	1308
HT5GC28	984008	190	blastx.2	alpha subunit; forms heterodimer with NC2 alpha/Dr1 [Homo sapiens]	emb|CAA65358.1|	60%	34	423
						58%	248	421

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HDABW50	984168	191	blastx.2	t-complex polypeptide 1 (AA 1-556) [Homo sapiens]	emb|CAA37064.1|	100%	185	451
HAQBH11	985043	192	blastx.2	(AJ243177) Xenopus RPA interacting protein alpha [Xenopus laevis]	emb|CAB45690.1|	42% 46% 46% 28% 35%	393 110 238 244 247	626 244 393 369 336
HMVAW42	985280	193	blastx.2	extensin-like protein [Zea mays]	emb|CAA84230.1|	28%	960	10
HAGDF03	985323	194	blastx.2	neuromedin U [Homo sapiens]	emb|CAA53619.1|	100%	169	690
HOPKI29	985401	195	blastx.2	(AF087135) F1FO-type ATPase subunit d [Homo sapiens]	gb|AAC36338.1|	100%	65	547
HAJCA11	985580	196	blastx.2	GTBP-ALT [Homo sapiens]	dbj|BAA23673.1|	98% 97%	394 2	1293 391
HWAHA1	986078	197	blastx.2	(AB031292) proteolipid protein 2 [Mus musculus]	dbj|BAA83500.1|	31%	134	511
HSAMI43	986158	198	blastx.2	(AF111423) chromosome condensation protein XCAP-G [Xenopus laevis]	gb|AAD09819.1|	54% 53%	14 14	1471 1387
HNFJH73	986165	199	blastx.2	erm [Homo sapiens]	emb|CAA65246.1|	100%	1	591
HNTCH03	986328	200	blastx.2	put. ORF [Homo sapiens]	emb|CAA39297.1|	48% 70%	103 651	363 680
HSUAA20	986744	201	blastx.2	replication protein A,	gb|AAA36584.1|	100%	2	1312

							1315	1347
HSPAD08	986767	202	blastx.2	70-kDa subunit [Homo sapiens]		100%	1315	1347
				(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens]	emb|CAB37641.1|	100%	905	1054
HFKBA32	987018	203	blastx.2	(AL121740) hypothetical protein [Homo sapiens]	emb|CAB57330.1|	76%	256	1092
						83%	540	743
HHFLU49	987071	204	blastx.2	(AF068749) sphingosine kinase [Mus musculus]	gb|AAC61698.1|	46%	278	718
HOENX16	987112	205	blastx.2	helix-loop-helix protein [Homo sapiens]	emb|CAA69255.1|	100%	368	850
HTFOW71	987165	206	blastx.2	(AF121862) sorting nexin 13 [Homo sapiens]	gb|AAD27835.1|AF1 21862_1	96%	38	400
						88%	3	53
HTTAG03	987262	207	blastx.2	SPIN protein [Homo sapiens]	emb|CAA75163.1|	94%	57	1289
						47%	81	476
						41%	663	1238
						44%	492	857
						36%	801	1061
						33%	516	812
						37%	195	428
						61%	1228	1278

HNTNN89	987577	blastx.2	elongation factor 2 [Homo sapiens]	emb|CAA35829.1|	98% 77% 100%	110 543 2	547 713 115
HRADQ96	987636	blastx.2	(AF134726) NG23 [Homo sapiens]	gb|AAD21821.1|	96% 100%	303 6	398 29
HLDCJ16	987808	blastx.2	3-oxoacyl-[acyl-carrier-protein] reductase (EC 1.1.1.100). [Escherichia coli]	dbj|BAA35901.1|	39%	159	761
HCOPH23	987900	blastx.2	nucleoporin-like protein [Homo sapiens]	emb|CAA61667.1|	94%	289	447
HEEAQ78	988159	blastx.2	TBX2 [Homo sapiens]	gb|AAA73861.1|	99% 98% 33% 29% 29%	164 1 12 206 260	475 165 191 394 403
HOFNY16	988363	blastx.2	(AL110239) hypothetical protein [Homo sapiens]	emb|CAB53690.1|	99% 100%	242 144	853 236
HSLCX45	988441	blastx.2	(AB006572) RPB5 meidating protein [Homo sapiens]	dbj|BAA34781.1|	98%	106	1404
HLMJB09	988499	blastx.2	cDNA EST yk575f9.3 comes from this gene [Caenorhabditis elegans]	emb|CAA94859.1|	39% 34%	270 496	491 591
HOVEF60	988526	blastx.2	envelope protein [Homo sapiens]	gb|AAA88027.1|	75% 36%	377 11	598 298
HOGDR72	988536	blastx.2	RNA polymerase II transcription factor SIII	gb|AAA75522.1|	100%	62	415

HOCMF20	988556	218	blastx.2	p18 subunit [Homo sapiens]	emb|CAA71143.1|	99%	1	366
HAMHH26	988737	219	blastx.2	high mobility group protein 2a [Homo sapiens]	gb|AAB40147.1|	98%	429	728
HHFOX44	988904	220	blastx.2	MHC Class I region proline rich protein [Homo sapiens] binding protein [Homo sapiens]	emb|CAA00862.1|	99% 52% 56% 28% 36% 31% 45%	153 308 804 67 88 637 48	587 907 956 222 318 789 107
HPWDE54	989029	221	blastx.2	(AJ252060) TRABID protein [Homo sapiens]	emb|CAB64449.1|	97%	1	2127
HNOAX46	989183	222	blastx.2	Berg36 [Homo sapiens]	emb|CAA67781.1|	100%	49	789
HCQCB28	989280	223	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	60% 77% 57%	471 301 1148	292 167 1107
HOOJB32	989321	224	blastx.2	(AB007619) EBAG9 [Homo sapiens]	dbj|BAA22572.1|	100%	535	1173
HMWJJ35	989323	225	blastx.2	Leu2 [Homo sapiens]	emb|CAA75516.1|	93% 100% 72%	312 551 260	410 607 346
HHFIA95	989396	226	blastx.2	(AB002533) Qip1 [Homo sapiens]	dbj|BAA19546.1|	92% 24% 47% 35%	120 279 1 5	1178 974 216 121

HSPSH36	989607	blastx.2	transcription factor ILF [Homo sapiens]	emb|CAA43200.1|	94% 100%	77 250	247 282
HAAAA25	989952	blastx.2	p67 myc protein [Homo sapiens]	dbj|BAA01374.2|	100%	100	660
HTEMJ16	990060	blastx.2	(AF151075) HSPC241 [Homo sapiens]	gb|AAF36161.1|AF1 51075_1	97%	361	618
HWLAB90	990146	blastx.2	(AF067817) VAV-3 protein [Homo sapiens]	gb|AAC79695.1|	98% 89%	2 622	652 813
HOSED43	990184	blastx.2	(AK001851) unnamed protein product [Homo sapiens]	dbj|BAA91941.1|	100%	2	790
HNODF50	990254	blastx.2	(AF222742) synaptic glycoprotein SC2 [Homo sapiens]	gb|AAF32373.1|AF2 22742_1	100% 93% 100%	616 187 116	1155 528 181
HLWBV17	990255	blastx.2	(AF222742) synaptic glycoprotein SC2 [Homo sapiens]	gb|AAF32373.1|AF2 22742_1	100% 78% 57%	282 123 26	542 206 88
HOCQH66	990435	blastx.2	collagen type VI, alpha 3 chain [Homo sapiens]	emb|CAA36267.1|	98% 43% 40% 45% 46% 44% 47% 48% 45% 46% 43% 44% 41%	43 40 40 43 49 43 46 46 46 46 49 49 43	2745 330 330 327 330 327 330 330 330 330 339 327 327

1512

Clone	No.	Program	Description	Accession	%		
					48%	85	330
					41%	46	327
					41%	49	327
					41%	46	333
					43%	49	327
					26%	391	960
					26%	1117	1587
					42%	531	647
HOGDC67	235	blastx.2	pyrroline-5-carboxylate reductase [Homo sapiens]	gb|AAA36407.1|	99%	75	1031
HCDBO02	236	blastx.2	TIP120 [Rattus norvegicus]	dbj|BAA13432.1|	97%	10	3258
					66%	131	202
HODGN92	237	blastx.2	coded for by C. elegans cDNA yk38h3.5; coded for by C. elegans 1 1 [Caenorhabditis elegans]	gb|AAA83581.1|	37%	107	499
HPDRP30	238	blastx.2	(AL122073) hypothetical protein [Homo sapiens]	emb|CAB59248.1|	99%	1436	2098
HBXFN09	239	blastx.2	ORF 3 [Homo sapiens]	gb|AAA58464.1|	42%	65	226
					71%	43	63
HDTBO75	240	blastx.2	(AF065391) ZIS1 [Homo sapiens]	gb|AAD09746.1|	100%	241	324
					39%	4	72
					45%	13	72
					32%	1	75
					36%	1	72
					33%	13	.75
					21%	4	72

HELGN26	991014	241	blastx.2	(AF123653) FEZ1 [Homo sapiens]	gb|AAD23834.1|AF1 23653_1	47% 52% 38%	192 32 171	902 181 470
HODCU15	991048	242	blastx.2	(AF213822) hypothetical protein [Zymomonas mobilis]	gb|AAF23786.1|AF2 13822_1	42% 56% 27%	1104 1552 1747	1550 1710 1929
HOGDI51	991268	243	blastx.2	(AF007872) torsinB [Homo sapiens]	gb|AAC51733.1|	100% 92% 69%	238 607 803	492 873 940
HLWAF02	991516	244	blastx.2	(AK001371) unnamed protein product [Homo sapiens]	dbj|BAA91655.1|	100%	192	449
HRKPA16	991654	245	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	76%	263	24
HPDQX94	991761	246	blastx.2	microsomal glutathione S-transferase 2 [Homo sapiens]	gb|AAC51768.1|	100%	210	650
HEAAY09	992678	247	blastx.2	TSC-22 [Homo sapiens]	dbj|BAA07598.1|	96%	40	333
HPDRH78	992780	248	blastx.2	(AK000474) unnamed protein product [Homo sapiens]	dbj|BAA91189.1|	100% 79%	598 933	903 1079
HODFO57	992973	250	blastx.2	(AF176524) F-box protein FBL10 [Mus musculus]	gb|AAF09133.1|	67%	8	811
HOCPZ44	993380	251	blastx.2	(AF151075) HSPC241 [Homo sapiens]	gb|AAF36161.1|AF1 51075 1	99%	157	540
HPAMU38	993403	252	blastx.2	cDNA EST	emb|CAB04720.1|	48%	111	407

				yk269g12.5 comes from this gene; cDNA EST EMBL:D27364 1 comes from this gene; cDNA EST EMBL:D36272 comes ft		30% 37%	450 20	803 91
HNGGK47	993602	253	blastx.2	(AF126163) HHLA3 protein [Homo sapiens]	gb|AAD33288.1|AF126163 1	78%	277	372
HODGN51	993754	254	blastx.2	putative p150 [Homo sapiens]	gb|AAC51261.1|	64% 65% 48% 69%	124 77 3 545	549 205 134 613
HODCT60	993806	255	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj|BAA92096.1|	56% 50%	239 624	382 671
HAQBV81	993918	256	blastx.2	putative [Rattus norvegicus]	emb|CAA52297.1|	43%	3	695
HDTGF49	993931	257	blastx.2	(AK002081) unnamed protein product [Homo sapiens]	dbj|BAA92074.1|	87%	1073	1531
HOGBN62	994134	258	blastx.2	(AF132952) CGI-18 protein [Homo sapiens]	gb|AAD27727.1|AF132952_1	95% 95% 43%	155 12 421	295 155 558
HSKGR42	994234	259	blastx.2	(AK000741) unnamed protein product [Homo sapiens]	dbj|BAA91354.1|	73% 96% 56% 51% 34% 28%	147 1 412 413 291 273	536 153 528 499 404 377

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HOEBQ85	994356	blastx.2	(AL117435) hypothetical protein [Homo sapiens]	emb|CAB55923.1|	28% / 32%	316 / 291	468 / 437
HOPJG01	994536	blastx.2	creatine kinase B [Homo sapiens]	emb|CAA33389.1|	97%	3	362
					100%	1	1134
HKBAK06	994596	blastx.2	Cks1 protein homologue [Homo sapiens]	emb|CAA38702.1|	100% / 81%	231 / 67	410 / 144
HKGCN61	994664	blastx.2	NifU-like protein [Homo sapiens]	gb|AAC50885.1|	100%	169	531
HFOYI37	994776	blastx.2	ribosomal protein [Homo sapiens]	dbj|BAA03400.1|	100%	85	513
HOFNL18	994874	blastx.2	(AL031432) dJ465N24.1 (PUTATIVE novel protein similar to predicted yeast and worm proteins) [Homo sapiens]	emb|CAB37991.1|	84%	43	339
HOFNT57	994954	blastx.2	phosphate cyclase [Homo sapiens]	emb|CAA72364.1|	98% / 93%	273 / 124	1157 / 270
HCBMT45	994993	blastx.2	lin-10 protein homolog [Rattus norvegicus]	gb|AAB51383.1|	96%	46	1311

HATDZ56	995200	269	blastx.2	(AL031668) dJ64K7.2 (eukaryotic translation initiation factor 2, subunit 2 (beta, 38kD)) [Homo sapiens]	emb|CAB43741.1|	100%	156	1154
HOCQI44	995229	270	blastx.2	(AL050348) dJ447F3.2 (ubiquitin-conjugating enzyme E2 H10) [Homo sapiens]	emb|CAB66118.1|	92%	8	520
HNOJG43	995562	271	blastx.2	alpha 4 protein [Homo sapiens]	emb|CAA70119.1|	99%	73	981
HSPSB95	995590	272	blastx.2	proteasome subunit HsN3 [Homo sapiens]	dbj|BAA05647.1|	99%	47	838
HCORG29	995806	273	blastx.2	SRp30c [Homo sapiens]	gb|AAA93069.1|	100%	100	762
HCRNO02	995894	274	blastx.2	N8 GENE PRODUCT LONG ISOFORM, N8L PROTEIN=D52 1 HK4A1]:	sp|G1488414|G14884 14	74% / 63%	33 / 2	149 / 34
HCBOI79	996247	275	blastx.2	(AK000857) unnamed protein product [Homo sapiens]	dbj|BAA91400.1|	80% / 100%	99 / 419	506 / 637
HVCAB73	996337	276	blastx.2	NF45 protein [Homo sapiens]	gb|AAA20993.1|	94% / 70%	90 / 1175	1307 / 1297
HSDJH04	996619	277	blastx.2	RNA polymerase II subunit [Homo sapiens]	gb|AAA91459.1|	100%	219	419
HSOANI18	996804	278	blastx.2	(AB030654) AP-4 clathrin adaptor-related complex sigma4 subunit [Homo sapiens]	dbj|BAA82970.1|	100%	1	222

HHEHF49	996874	279	blastx.2	L-lactate permease [Escherichia coli]	gb|AAA03583.1|	91%	770	222
HCHCF36	996903	280	blastx.2	rac protein kinase-beta [Homo sapiens]	gb|AAA36585.1|	96%	1	456
HAHCK58	997127	281	blastx.2	(AK001138) unnamed protein product [Homo sapiens]	dbj|BAA91517.1|	98%	1	228
HETIJ06	997165	282	blastx.2	(AF152097) CGI-05 protein [Homo sapiens]	gb|AAD34147.1|AF152097_1	97%	218	352
HAPOE30	997595	283	blastx.2	nuclear protein SA-1 [Homo sapiens]	emb|CAA99731.1|	100% 88%	244 11	759 244
HRGDC33	997862	284	blastx.2	C13F10.7 gene product [Caenorhabditis elegans]	gb|AAC47967.1|	34% 44%	301 301	735 648
HMTMB91	997873	285	blastx.2	(AC004858) U1 small ribonucleoprotein 1SNRP homolog; match to PID:g4050087 [Homo sapiens]	gb|AAF19255.1|AC004858_3	100% 41%	1037 487	1174 555
HFAAD07	998059	286	blastx.2	(AJ132948) rfg7 protein [Homo sapiens]	emb|CAB55313.1|	97% 97%	274 32	957 298
HE8TG67	998517	287	blastx.2	product is related to clathrin-associated protein. [Homo sapiens]	dbj|BAA09762.1|	97% 97%	1226 502	1360 618
HACNC39	998533	288	blastx.2	weak similarity to Arabidopsis thaliana ubiquitin-like protein 8 [Caenorhabditis elegans]	gb|AAB42266.1|	80%	162	380

ID	SeqNum	No.	Method	Description	Accession	%		
HCOQP78	998901	289	blastx.2	(AB008927) neuropsin type2 [Homo sapiens]	dbj|BAA82666.1|	100%	75	989
HCGMA67	998905	290	blastx.2	rab8 [Canis familiaris]	emb|CAB56776.1|	100%	47	664
HSKHK19	998968	291	blastx.2	(AC004890) similar to HUB1; similar to BAA24380. (PID:g2789430) [Homo sapiens]	gb|AAD45825.1|AC004890_2	98% 38% 54% 70%	2 566 1095 558	466 721 1160 587
HAGGR59	999124	292	blastx.2	histone H1-I [Volvox carteri]	gb|AAA74723.1|	36%	270	596
HOPKS83	999148	293	blastx.2	(AF026124) schwannoma-associated protein [Mus musculus]	gb|AAC73069.1|	93%	425	1894
HE8CY70	999157	294	blastx.2	SEP PROTEIN (FRAGMENT).	sp|Q15352|Q15352	100% 92% 66% 48%	691 32 3 635	1368 691 128 706
HPCTI53	999243	295	blastx.2	(AJ250562) tetraspanin protein [Homo sapiens]	emb|CAB65594.1|	88% 100%	34 474	546 779
HOPKN50	999313	296	blastx.2	(AF017790) retinoblastoma-associated protein HEC [Homo sapiens]	gb|AAB80726.1|	95%	152	1702
HAPAI17	999778	297	blastx.2	(AK001832) unnamed protein product [Homo sapiens]	dbj|BAA91931.1|	97%	2	115
HHAUV59	999808	298	blastx.2	p116Rip [Mus musculus]	gb|AAB18198.1|	79% 67% 21%	95 547 1454	1903 801 1669

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HTXLL31	1000315	299	blastx.2	(AK001770) unnamed protein product [Homo sapiens]	dbj|BAA91897.1|	36% 27% 26% 39%	663 666 4 481	992 1379 645 621
HDPUH64	1000339	300	blastx.2	CRAG protein [Drosophila melanogaster]	emb|CAA76938.1|	42% 66% 65%	8 525 475	598 692 534
HTTHS93	1000424	301	blastx.2	(AL117183) conserved hypothetical protein [Schizosaccharomyces pombe]	emb|CAB54870.1|	25% 36%	55 755	720 994
HMVCG79	1000582	302	blastx.2	(AJ387747) sialin [Homo sapiens]	emb|CAB62540.1|	100%	3	854
HODHK20	1000669	303	blastx.2	(AF176555) A-kinase anchoring protein 220 [Homo sapiens]	gb|AAF07045.1|AF176555_1	94%	76	627
HCHMO53	1000875	304	blastx.2	(AK000462) unnamed protein product [Homo sapiens]	dbj|BAA91181.1|	41%	296	556
HFKKG84	1001066	305	blastx.2	(AF047002) transcriptional coactivator ALY [Homo sapiens]	gb|AAD09608.1|	98%	1	666
HOFMT20	1001333	306	blastx.2	(AK000541) unnamed protein product [Homo sapiens]	dbj|BAA91241.1|	48%	40	237
HPAMB04	1001695	307	blastx.2	17-kDa protein [Homo sapiens]	gb|AAA36038.1|	99%	127	621
HODEK48	1001901	308	blastx.2	pol [porcine endogenous retrovirus]	emb|CAA76582.1|	41% 33%	398 25	721 423

HVVCB28	1001954	309	blastx.2	S19 ribosomal protein [Homo sapiens]	gb|AAA89070.1|	100%	373	807
HCOOS01	1002071	310	blastx.2	proliferation associated gene (pag) [Homo sapiens]	emb|CAA48137.1|	100%	105	701
HDACA35	1002096	311	blastx.2	(AK001496) unnamed protein product [Homo sapiens]	dbj|BAA91724.1|	73%	23	652
HOVDG59	1002328	312	blastx.2	(AK001610) unnamed protein product [Homo sapiens]	dbj|BAA91787.1|	100% 28%	13 40	639 588
HTJAD78	1002459	313	blastx.2	immunoglobulin gamma-2 heavy chain [Homo sapiens]	emb|CAB58438.1|	98%	64	1041
HCDCF69	1002468	314	blastx.2	lysyl hydroxylase [Homo sapiens]	gb|AAA60116.1|	98%	353	508
HPTTW90	1002479	315	blastx.2	Huntington's Disease (HD) gene [Homo sapiens]	emb|CAA93701.1|	99%	3	356
HSUBG36	1002492	316	blastx.2	snRNP E protein (AA 1-92) [Homo sapiens]	emb|CAA31007.1|	100%	67	342
HODFU72	1002527	317	blastx.2	(AB022660) SET-binding protein (SEB) [Homo sapiens]	dbj|BAA82444.1|	32%	57	689
HCNSF57	1002545	318	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb|CAA40940.1|	96%	134	826
HODJU13	1002546	319	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	85%	2	106

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HODIL25	1002551	320	blastx.2	nuclear protein, NP220 [Homo sapiens]	dbj|BAA11748.1|	99%	207	1556
HUVHS56	1002563	321	blastx.2	(AF097441) phenylalanine-tRNA synthetase [Homo sapiens]	gb|AAC83802.1|	100%	174	755
HPMJQ18	1002565	322	blastx.2	unnamed protein product [unidentified]	emb|CAB69299.1|	91% 53%	407 209	823 247
HLHCI46	1002591	323	blastx.2	folate-binding protein precursor [Homo sapiens]	gb|AAA35822.1|	100%	153	923
HAOSD18	1002607	324	blastx.2	homologue to elongation factor 1-gamma from A.salina [Homo sapiens]	emb|CAA45089.1|	100%	98	1408
HACNG47	1002610	325	blastx.2	ribosomal protein L37a [Homo sapiens]	gb|AAA60280.1|	100%	86	361
HOPJX95	1002729	326	blastx.2	RPS16 [Homo sapiens]	gb|AAA60583.1|	100%	244	681
HSCLR05	1002807	327	blastx.2	HKR-T1 [Homo sapiens]	gb|AAB24264.2|	58% 42% 51% 41%	3 3 3 591	176 281 215 659
HVVAO74	1002811	328	blastx.2	clathrin light-chain A [Homo sapiens]	gb|AAA59505.1|	100%	178	831
HVVBK18	1003155	330	blastx.2	proteasome subunit HsC7-I [Homo sapiens]	dbj|BAA05646.1|	100%	323	925
HSCLM55	1003224	332	blastx.2	(AC004983) similar to PID:g3877944 [Homo sapiens]	gb|AAD15546.1|	100%	28	768

HETJU23	1003706	333	blastx.2	(AL133630) hypothetical protein [Homo sapiens]	emb|CAB63754.1|	99%	881	1477
						99%	504	881
						73%	64	513
						100%	373	507
						28%	878	1084
						26%	1121	1327
						35%	343	459
HNOKB73	1004480	334	blastx.2	(AF026692) frpHE [Homo sapiens]	gb|AAC04617.1|	93%	18	515
HODFB06	1004583	335	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj|BAA25253.1|	41%	362	760
						51%	3	143
						63%	135	191
						51%	265	360
						70%	200	259
HODJA76	1004619	336	blastx.2	(AF113685) PRO0974 [Homo sapiens]	gb|AAF29584.1|AF113685_1	56%	171	293
						38%	277	453
HODJY60	1004625	337	blastx.2	putative [Homo sapiens]	gb|AAC37567.1|	100%	141	683
HODEF10	1004627	338	blastx.2	(AB005878) BYJ15 [Nicotiana tabacum]	dbj|BAA21615.1|	69%	10	135
HODFB03	1004631	339	blastx.2	DNA primase (p58 subunit) [Homo sapiens]	emb|CAA52378.1|	90%	1	789
HPMLN08	1004632	340	blastx.2	(AF027728) kinesin-related protein [Xenopus laevis]	gb|AAC60300.1|	25%	518	1165
						26%	135	533
						24%	524	1051
						23%	524	1060
HODEH08	1004633	341	blastx.2	(AK001410) unnamed protein product [Homo sapiens]	dbj|BAA91675.1|	87%	22	369

HEGBF25	1004635	blastx.2	(AF069736) PCAF associated factor 65 beta [Homo sapiens]	gb|AAC39906.1|	98%	165	758
HODJB51	1004643	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	52%	405	142
HODEC38	1004648	blastx.2	(AJ010089) GANP protein [Homo sapiens]	emb|CAB52687.1|	97% 52% 62% 87%	68 1993 2055 2030	208 2175 2150 2053
HODIQ24	1004660	blastx.2	(AK001892) unnamed protein product [Homo sapiens]	dbj|BAA91965.1|	100%	3	236
HVVDD56	1004887	blastx.2	gpStaf50 [Homo sapiens]	emb|CAA57684.1|	97% 66%	435 1204	1238 1245
HTHDV01	1004950	blastx.2	c-fos protein [Homo sapiens]	gb|AAA52471.1|	100%	153	1292
HVVDJ95	1005153	blastx.2	Ral guanine nucleotide dissociation stimulator [Homo sapiens]	gb|AAA52360.1|	80%	185	400
HODIY29	1005236	blastx.2	DNA-binding protein 5 - human	pir|S26650|S26650	97% 89% 57% 59% 53% 52% 58% 48% 43% 65%	1 13 1 4 19 4 4 4 1 4	963 963 453 453 453 444 408 453 453 276

HOELP29	1005359	350	blastx.2	uridine kinase [Mus musculus]	gb|AAB50568.1|	41% 42%	1 25	444 441
HWLFG04	1005384	351	blastx.2	tax1-binding protein TXBP151 [Homo sapiens]	gb|AAA75595.2|	71%	309	1013
HYAAC49	1005511	352	blastx.2	(AF001628) interactor protein AblBP4 [Homo sapiens]	gb|AAD00897.1|	100% 97% 93% 33% 88% 70% 100% 100% 87%	2 107 107 155 58 690 717 720 717	1015 688 727 688 111 749 737 740 740 740
HCOOA71	1005843	353	blastx.2	nuclear autoantigen fo 14 kDa [Homo sapiens]	emb|CAB09660.1|	76%	68	205
HOUFB45	1005974	354	blastx.2	(AF072441) calcineurin binding protein cabin 1 [Homo sapiens]	gb|AAD40846.1|AF072441_1	98%	2	403
HUSJI14	1006018	355	blastx.2	(AK001676) unnamed protein product [Homo sapiens]	dbj|BAA91829.1|	99% 98% 54%	411 40 377	2081 381 448
HMCDB21	1006055	356	blastx.2	alpha1A-voltage-dependent calcium channel [Homo sapiens]	gb|AAB49678.1|	100%	435	509
HSDEY08	1006142	357	blastx.2	SWI/SNF complex 60 KDa subunit [Homo sapiens]	gb|AAC50697.1|	92% 80%	573 136	1037 603

				sapiens]		47% 37% 27% 34%	158 105 666 323	403 377 773 418
HOOJT92	1006215	358	blastx.2	(AC007055) unknown [Homo sapiens]	gb|AAD31938.1|AC0 07055 3	97%	44	172
HNQRE03	1006250	359	blastx.2	(AK000927) unnamed protein product [Homo sapiens]	dbj|BAA91430.1|	100%	4	669
HPCTS21	1006317	360	blastx.2	(AE001373) predicted secreted protein [Plasmodium falciparum]	gb|AAC71813.1|	27% 22%	237 177	1049 1187
HFATL31	1006399	361	blastx.2	light chain 3 subunit of microtubule-associated proteins 1A and 1B [Rattus norvegicus]	gb|AAA20645.1|	82%	146	505
HE2JE77	1006445	362	blastx.2	(AF078848) BUP [Homo sapiens]	gb|AAD44480.1|	100%	2	328
HCBNX87	1006470	363	blastx.2	(AL137735) hypothetical protein [Homo sapiens]	emb|CAB70899.1|	99%	1	420
HNTDJ68	1006483	364	blastx.2	l(3)mbt protein homolog [Homo sapiens]	gb|AAC69438.1|	64% 41% 44% 40%	3 628 3 201	626 1410 533 611

HTRAA05	1006512	blastx.2	heat shock protein [Drosophila melanogaster]	emb|CAA30276.1|	60%	631	840
					55%	6	221
					49%	628	840
					28%	459	614
					33%	109	294
					50%	393	428
HMTAL96	1006635	blastx.2	ras-like protein [Homo sapiens]	gb|AAA36547.1|	98%	90	515
HDTJP21	1006858	blastx.2	(AF090942) PRO0657 [Homo sapiens]	gb|AAF24054.1|AF090942_1	67%	17	136
					73%	126	215
HISEQ81	1006943	blastx.2	(AF009668) polyprotein [multiple sclerosis associated retrovirus]	gb|AAB66528.1|	83%	247	17
					70%	435	235
					87%	514	395
HODFH02	1006953	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj|BAA92096.1|	74%	346	438
					52%	426	488
HOCPP18	1007230	blastx.2	(AF150100) small zinc finger-like protein [Homo sapiens]	gb|AAD40006.1|AF150100_1	100%	305	571
HODFP91	1007941	blastx.2	SpZ12-1 [Strongylocentrotus purpuratus]	gb|AAA85705.1|	27%	69	806
H6EDU06	1007976	blastx.2	(AF151894) CGI-136 protein [Homo sapiens]	gb|AAD34131.1|AF151894_1	99%	75	449
HPCRD26	1008013	blastx.2	predicted using Genefinder; Similarity to Yeast mitochondrial 11 yk432a4.3 comes	emb|CAB02879.1|	35%	423	1229
					44%	1220	1294

				from this gene; cDNA EST yk432a4				
HSIEH63	1008027	374	blastx.2	(AF007791) secreted cement gland protein XAG-2 homolog [Homo sapiens]	gb|AAC77358.1|	65%	87	554
HPASD51	1008071	375	blastx.2	PDI (E.C.5.3.4.1) [Bos taurus]	gb|AAA30690.1|	33%	81	752
HCOQH27	1008154	376	blastx.2	IEF SSP 9502 [Homo sapiens]	gb|AAA65201.1|	100%	131	1315
HCOPZ14	1008179	378	blastx.2	guanylate kinase [Homo sapiens]	gb|AAC37598.1|	84%	889	1023
HODEC78	1008299	379	blastx.2	bicaudal-D [Homo sapiens]	gb|AAB94805.1|	94% 97% 40% 72% 20% 35% 21% 25% 39%	379 1203 319 1351 328 1191 328 856 328	1230 1343 744 1470 1188 1343 792 1056 396
HODEF29	1008304	380	blastx.2	(AB005878) BYJ15 [Nicotiana tabacum]	dbj|BAA21615.1|	80% 22%	38 202	133 330
HODEF78	1008314	382	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	93%	3	101
HODEL83	1008324	383	blastx.2	pol gene protein; Xxx [Homo sapiens]	gb|AAA88026.1|	76%	132	407
HHPSH76	1008325	384	blastx.2	(AF019386) heparan sulfate 3-O-sulfotransferase-1	gb|AAB84388.1|	100%	286	1206

HBGBE52	385	blastx.2	precursor [Homo sapiens] T2 [Mus musculus]	emb|CAA48048.1|	29% 33%	782 661	408 407
HBQAB30	386	blastx.2	alternatively spliced [Homo sapiens]	gb|AAA35654.1|	93%	24	737
HLHCB31	387	blastx.2	matrix metalloproteinase, MT2MMP [Homo sapiens]	dbj|BAA13071.1|	97%	1	558
HPFDV51	388	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	66% 69%	62 3	217 71
HODEG13	390	blastx.2	unknown protein [Homo sapiens]	gb|AAA88038.1|	65% 66% 67%	2 183 341	214 341 478
HHPFK16	391	blastx.2	Krueppel-related DNA-binding protein [Homo sapiens]	gb|AAA52689.1|	79% 65%	166 387	405 470
HARAL81	392	blastx.2	(AF090894) PRO0113 [Homo sapiens]	gb|AAF24018.1|AF090894_1	55% 55%	217 323	104 216
HFTAU42	393	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	59% 55% 54%	1282 1115 1113	1106 990 1051
HETDA81	394	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	88% 42%	3 221	110 262

HODEI92	1008359	395	blastx.2	(AF062006) orphan G protein-coupled receptor HG38 [Homo sapiens]	gb|AAC28019.1|	45%	1	306
HODEG86	1008379	397	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	55% 51%	236 424	400 546
HODFA57	1008396	398	blastx.2	retrovirus-related pol polyprotein pseudogene - human 1	pir|A26718|A26718	36% 58%	102 17	596 67
HODFB31	1008401	399	blastx.2	(AL021768) ATP binding protein-like [Arabidopsis thaliana]	emb|CAA16931.1|	52%	1	261
HTEMP79	1008406	400	blastx.2	(AJ223782) CDC10 [Mus musculus]	emb|CAA11547.1|	95% 51% 94%	374 136 625	628 375 678
HODEI59	1008423	401	blastx.2	(AJ237734) ribophorin II [Homo sapiens]	emb|CAB54801.1|	100% 100% 97% 39% 30%	296 1404 1270 1876 1145	1273 1859 1404 1959 1279
HODEF94	1008429	402	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	100%	2	85
HPFCZ53	1008445	403	blastx.2	(AF176818) transcription factor AP-2 [Silurana tropicalis]	gb|AAD53289.1|AF176818_1	79% 93%	296 3	769 296
HWACN71	1008764	404	blastx.2	(AF105261) natural killer cell receptor 2B4 [Homo sapiens]	gb|AAD32538.1|AF105261_1	100%	174	1268
HOFMU69	1009017	405	blastx.2	(AF077038) unc-50	gb|AAD27771.1|AF0	97%	375	1151

				related protein homolog [Homo sapiens]	77038_1			
HETBR71	1009343	blastx.2	(AL049610) dJ1055C14.1 (transcription elongation factor A (SII)-like 1) [Homo sapiens]	emb|CAB55700.1|	99%	182	658
HE2ES17	408	blastx.2	CDV-1R protein [Mus musculus]	emb|CAA71519.1|	89%	3	914
HELHM06	409	blastx.2	pre-mRNA splicing factor [Homo sapiens]	gb|AAA36649.1|	85%	56	349
HE2ES61	411	blastx.2	(AC005034) gc-rich sequence dna-binding factor [Homo sapiens]	gb|AAC82536.1|	100%	555	427
HE2SO43	412	blastx.2	protein Htf9C [Mus musculus]	emb|CAA39515.1|	74%	73	390
HLHCI07	413	blastx.2	(AL031985) dJ228H13.1 (similar to Ribosomal protein L21e) 1	emb|CAB46381.1|	75%	127	8
HTTBR65	414	blastx.2	E1A-F [Homo sapiens]	dbj|BAA02234.1|	100%	55	231
HPFCV71	415	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj|BAA92096.1|	60%	449	622
HCABR46	416	blastx.2	BST-2 [Homo sapiens]	dbj|BAA05679.1|	88%	127	423
HCRCB80	417	blastx.2	OTK27 [Homo sapiens]	dbj|BAA23363.1|	100%	96	479
HPMLW78	418	blastx.2	E2A/PRL fusion	gb|AAA36764.1|	99%	1	606

(Row HETBR71 is numbered 407.)

			protein [Homo sapiens]				
HODIX27	420	blastx.2	(AJ005324) glutamate permease [synthetic construct]	emb|CAA06471.1|	90%	1	123
HODJV85	421	blastx.2	ribosomal protein [Homo sapiens]	gb|AAA36589.1|	77% 35%	366 505	205 416
HOOJO38	422	blastx.2	ribosomal protein L14 [Homo sapiens]	dbj|BAA13443.1|	98%	1	603
HAOSI69	423	blastx.2	bcl-1 [Homo sapiens]	gb|AAA58392.1|	100%	271	1155
HSDIY67	424	blastx.2	hypoxanthine (guanine) phosphoribosyltransferase [Cricetulus longicaudatus]	emb|CAA42198.1|	69%	60	689
HSDZM65	425	blastx.2	(AJ010953) putative Ca2+-transporting ATPase [Homo sapiens]	emb|CAA09425.1|	100%	2	337
HPDOC39	426	blastx.2	(AB009282) cytochrome b5 [Homo sapiens]	dbj|BAA23735.1|	99%	171	608
HE2PS15	427	blastx.2	(AF054175) mitochondrial proteolipid 68MP homolog [Homo sapiens]	gb|AAC39909.1|	100%	63	236
HTTKH22	428	blastx.2	weak similarity to	emb|CAA86663.1|	38%	887	1435

ID	Num	Method	Description	Accession	%		
HNOJG33	429	blastx.2	microtubule associated proteins; cDNA EST 1 EMBL:D37339 comes from this gene; cDNA EST EMBL:D6742		32%	1442	1561
			SAS [Homo sapiens]	gb|AAC39524.1|	27%	692	949
HPDVK48	430	blastx.2	AZ-1 [Mus musculus]	dbj|BAA19002.1|	98%	590	1207
					68%	1203	1274
					100%	1246	1278
					82%	236	730
					77%	1100	1630
					82%	735	1100
					70%	1	243
					23%	200	775
					23%	1100	1603
					34%	753	1103
					25%	203	769
					29%	1148	1612
					26%	1160	1612
					27%	284	775
					27%	1091	1600
					31%	747	1091
					19%	302	709
					27%	750	1085
					27%	738	1094
					30%	747	1097
					26%	239	727
					27%	660	1088
					22%	747	1085
					33%	750	1007

					%		
					20%	780	1331
					23%	735	1061
					25%	305	691
	/				22%	750	1106
					27%	413	730
					28%	413	730
					42%	151	249
					32%	747	938
					31%	106	246
					23%	401	673
					25%	533	706
					24%	97	273
HNORJ10	1011186	blastx.2	hypoxia-inducible factor 1 alpha [Homo sapiens]	gb|AAC50152.1|	99%, 54%	30, 120	1628, 152
HPDRG92	1011209	blastx.2	2-oxoglutarate dehydrogenase precursor [Homo sapiens]	dbj|BAA01393.1|	82%, 73%, 35%	7, 237, 1	234, 326, 60
HOFMQ81	1011303	blastx.2	unnamed protein product [Bos taurus]	emb|CAA71771.1|	66%, 66%	152, 97	541, 141
HOFNF27	1011315	blastx.2	coxsackie and adenovirus receptor protein [Homo sapiens]	emb|CAA68868.1|	89%	60	623
HOFND52	1011316	blastx.2	interferon alpha /beta receptor [Homo sapiens]	emb|CAA61914.1|	43%, 44%	240, 59	533, 205
HOFNL96	1011321	blastx.2	GM2-activator protein [Homo sapiens]	emb|CAA43408.1|	49%, 43%	72, 28	551, 123
HOFNF53	1011332	blastx.2	(AF039584) decay	gb|AAC77439.1|	46%	62	883

				Description	Accession	% Identity		
				accelerating factor soluble-form precursor; CD55 [Rattus norvegicus]		41% 28% 32% 75%	1155 161 880 99	1706 784 1101 143
HOFMU61	1011360	438	blastx.2	(AJ009698) embigin protein [Rattus norvegicus]	emb|CAA08796.1|	60%	377	1249
HOFOF35	1011499	439	blastx.2	(AF061738) leucine aminopeptidase [Homo sapiens]	gb|AAD17527.1|	86% 88% 82% 25% 90%	88 602 20 52 576	582 736 88 450 605
HULFJ37	1011537	440	blastx.2	midkine [Homo sapiens]	dbj|BAA01457.1|	100%	124	552
HOFME75	1011607	441	blastx.2	collagen binding protein 2 [Homo sapiens]	dbj|BAA11829.1|	93%	224	970
HOPKO74	1011608	442	blastx.2	collagen binding protein 2 [Homo sapiens]	dbj|BAA11829.1|	99%	229	1482
HCBBA51	1011755	443	blastx.2	(AF077045) ATP synthase epsilon chain [Homo sapiens]	gb|AAD27778.1|AF077045_1	100%	114	266
HDHEB13	1011773	444	blastx.2	type X collagen [Bos taurus]	emb|CAA37624.1|	42% 42% 52% 49% 50% 49% 47%	202 235 229 229 202 232 235	942 942 534 537 537 549 537

1535

Clone	Number	SEQ	Program	Description	Accession	%		
						45%	229	534
						45%	229	549
						49%	235	537
						49%	232	537
						45%	199	534
						48%	211	537
						49%	235	537
						49%	235	534
						47%	226	537
						45%	235	534
						44%	226	534
						42%	202	534
						35%	235	750
						45%	235	537
						34%	235	750
						42%	232	534
						40%	202	549
						48%	283	537
						32%	53	277
						50%	50	130
						31%	47	277
HDTMG36	1011821	445	blastx.2	(AJ271158) DAPIT protein [Rattus norvegicus]	emb|CAB71156.1|	91%	75	248
HVVCJ38	1011830	446	blastx.2	CLC-7 chloride channel protein [Homo sapiens]	emb|CAA91556.1|	100%	20	817
HPAMY22	1011840	447	blastx.2	scleraxis=basic helix-loop-helix transcription factor [mice, embryos,]	gb|AAB34266.1|	79%	4	180

				Peptide, 207 aa] [Mus sp.]				
HE9CP86	1011847	448	blastx.2	(AF161499) HSPC150 [Homo sapiens]	gb|AAF29114.1|AF161499_1	100%	137	727
HPDOU46	1011883	449	blastx.2	(AF117582) calcyphosine-like protein [Manduca sexta]	gb|AAF16704.1|AF117582_1	52%	72	692
HFCDW73	1011901	450	blastx.2	(AK000376) unnamed protein product [Homo sapiens]	dbj|BAA91124.1|	94%	6	425
HOVEB13	1011919	451	blastx.2	(AL117452) hypothetical protein [Homo sapiens]	emb|CAB55934.1|	99%	96	905
HPAMS93	1011948	452	blastx.2	TB1 [Homo sapiens]	gb|AAA03587.1|	97%	125	1105
HCRBN71	1011966	453	blastx.2	unknown [Saccharomyces cerevisiae]	gb|AAA79999.1|	40%	64	420
HCRNC60	1012005	454	blastx.2	tropomyosin [Homo sapiens]	gb|AAA36771.1|	81% 91% 31% 28% 27% 24% 22%	769 1202 796 766 766 925 1238	1236 1519 1245 1257 1218 1212 1459
HSPSJ24	1012064	455	blastx.2	IFN-alpha responsive transcription factor [Homo sapiens]	gb|AAA58687.1|	100%	392	925
HOVDZ22	1012136	457	blastx.2	unnamed protein product [unidentified]	emb|CAB69195.1|	89%	2	82

HCONM62	1012454	blastx.2	100 kDa coactivator [Homo sapiens]	gb|AAA80488.1|	97% 29%	5 2	1306 646
HOGEU69	1012459	blastx.2	TB2 [Homo sapiens]	gb|AAA66351.1|	99%	101	691
HVVBD93	1012469	blastx.2	(AK001339) unnamed protein product [Homo sapiens]	dbj|BAA91635.1|	33% 27%	23 601	382 852
HCOMV86	1012482	blastx.2	DC classII histocompatibility antigen alpha-chain [Homo sapiens]	emb|CAA25141.1|	94% 98%	307 71	834 319
HCONJ23	1012519	blastx.2	DNA-PK [Homo sapiens]	gb|AAA79184.1|	97%	1	990
HVVBL04	1012536	blastx.2	inositol 1,4,5-trisphosphate receptor type 2 [Mus musculus]	emb|CAA94861.1|	98%	2	310
HVVAF65	1012542	blastx.2	peroxisomal acyl-CoA oxidase [Homo sapiens]	emb|CAA50574.1|	98%	3	731
HCONN76	1012545	blastx.2	p78 protein [Homo sapiens]	gb|AAA36458.1|	99%	64	1716
HODEG95	1012599	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb|AAF22026.1|AF1 18094_21	64% 41%	452 550	300 443

HCOOX52	1012600	blastx.2	C1 inhibitor [Homo sapiens]	emb|CAA30314.1|	100%	68	1567
HVVBK78	1012645	blastx.2	protein kinase C mu [Homo sapiens]	emb|CAA53384.1|	98%	101	643
HVVBK73	1012646	blastx.2	amiloride binding protein [Homo sapiens]	emb|CAA55046.1|	93% 52%	2 648	709 710
HCOMW3 5	1012652	blastx.2	NBK [Homo sapiens]	emb|CAA62013.1|	100%	48	527
HVVBJ28	1012654	blastx.2	(AF026851) cytochrome oxidase assembly factor [Homo sapiens]	gb|AAD08640.1|	99% 99%	44 1102	1099 1701
HVVAF41	1012665	blastx.2	(AB006202) cytochrome b small subunit of complex II [Homo sapiens]	dbj|BAA22054.1|	100%	74	550
HVVAS32	1012668	blastx.2	giantin [Homo sapiens]	emb|CAA53052.1|	95% 97% 27% 22% 23% 23% 22% 23% 23% 22% 20% 22% 19%	24 2032 141 123 222 135 117 153 117 126 117 69 126	2036 2856 1877 2252 2015 2078 2030 2021 1829 2018 1877 2039 1883

HVVAQ70	1012678	479	blastx.2	voltage dependent anion channel form 3 [Homo sapiens]				
						22%	441	1994
						20%	1281	2039
						23%	2014	2622
						84%	43	117
						34%	2437	2700
						22%	2071	2631
						20%	2125	2628
						24%	2143	2625
						23%	2128	2616
						23%	1987	2652
						21%	2032	2538
						24%	2140	2625
						20%	2206	2634
						23%	2035	2622
						21%	2053	2694
						24%	1987	2559
						20%	2104	2715
						25%	2032	2313
						19%	2065	2610
						19%	2152	2628
						20%	2032	2565
						28%	2080	2238
						100%	110	136
						22%	3779	3910
						43%	3833	3901
						21%	2035	2616
						27%	2905	3057
					gb|AAB93872.1|	100%	134	982

HVVAQ22	1012684	480	blastx.2	smooth muscle myosin light chain kinase, smMLCK [C-terminal] 11	gb|AAB50715.1|	98% 98%	67 67	573 573
HTAES83	1012693	481	blastx.2	specific 116-kDa vacuolar proton pump subunit [Homo sapiens]	gb|AAA97878.1|	99% 99%	302 2350	1990 2961
HOCMN67	1012700	482	blastx.2	receptor kinase [Homo sapiens]	gb|AAA58391.1|	99% 92% 54% 60%	1 1142 1310 1332	1155 1306 1375 1376
HAPOW35	1012711	483	blastx.2	agpet8 protein. [Schizosaccharomyces pombe]	emb|CAA94699.1|	48%	113	553
HOVJM48	1013085	484	blastx.2	(AL035593) dJ310J6.1 (novel protein) [Homo sapiens]	emb|CAB56526.1|	100%	2	454
HBJHY84	1013213	485	blastx.2	(AK000703) unnamed protein product [Homo sapiens]	dbj|BAA91330.1|	97%	3	653
HFIAS44	1013288	487	blastx.2	(AF124727) acinusS [Homo sapiens]	gb|AAD56725.1|	99% 100% 43% 38% 34% 28% 24% 26% 23% 30%	205 69 1186 1186 1168 1195 1183 1375 1313 1490	1605 203 1389 1407 1395 1605 1605 1653 1615 1675

Clone	ID	SEQ	Method	Description	Accession	%		
HHAUD68	1013349	488	blastx.2	non-histone chromosomal protein [Homo sapiens]	gb|AAB53427.1|	40%	1112	1207
HEEAA89	1013436	489	blastx.2	(AF071172) HERC2 [Homo sapiens]	gb|AAD08657.1|	100%	269	538
HNTAK22	1013524	490	blastx.2	(AF053944) aortic carboxypeptidase-like protein ACLP [Homo sapiens]	gb|AAC25585.1|	98%	43	675
						100%	2	46
						99%	2	3175
						34%	53	853
						32%	20	853
						27%	3	763
						27%	9	305
						25%		341
HOVBX78	1013687	491	blastx.2	(AK001751) unnamed protein product [Homo sapiens]	dbj|BAA91882.1|	98%	281	637
						88%	633	707
						47%	649	750
HVVAW74	1013740	492	blastx.2	elongation factor 2 [Homo sapiens]	emb|CAA35829.1|	99%	139	516
						90%	5	136
HSPSF84	1013853	493	blastx.2	heat shock protein [Drosophila melanogaster]	emb|CAA30276.1|	40%	165	440
HPAMV95	1014003	494	blastx.2	metalloproteinase inhibitor precursor [Homo sapiens]	gb|AAA59581.1|	100%	54	713
HOVBX22	1014041	495	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	60%	317	183
						40%	159	67
						63%	181	149
HPDRB63	1014204	496	blastx.2	zinc finger protein C2H2-25 [Homo sapiens]	gb|AAA93261.1|	60%	2	781
						65%	2	646
						59%	2	679
						53%	2	766

						%		
HNHGJ66	1014252	497	blastx.2	fused-ccdB [Escherichia coli]	emb|CAA71575.1|	49%	47	766
						46%	50	775
						68%	2	313
						66%	2	232
						98%	2291	2467
HDPPN96	1014432	498	blastx.2	interferon-gamma induced protein [Homo sapiens]	gb|AAA58683.1|	99%	416	1741
						85%	1535	2434
						39%	1574	2413
						33%	536	1624
HPCTH41	1014485	499	blastx.2	(AB014888) MRJ [Homo sapiens]	dbj|BAA32209.1|	100%	168	890
						92%	1	123
HPCTY73	1014646	500	blastx.2	glycyl tRNA synthetase [Homo sapiens]	dbj|BAA06338.1|	100%	83	2299
HCOPQ33	1014730	501	blastx.2	SOX9 [Homo sapiens]	emb|CAA86598.1|	100%	3	380
HOEBR36	1014754	502	blastx.2	(AF180801) peroxisomal long chain acyl-CoA thioesterase Ib [Mus musculus]	gb|AAF13872.1|	73%	429	1061
						77%	176	352
						73%	9	167
						44%	352	480
HOEER36	1014869	504	blastx.2	(AF172066) retinoic acid repressible protein [Homo sapiens]	gb|AAD49745.1|AF172066_1	100%	75	794
HE8OX75	1015010	505	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	53%	328	158
						54%	246	112
						85%	110	48
HVASI06	1015024	506	blastx.2	(AK000178) unnamed protein product [Homo sapiens]	dbj|BAA90992.1|	100%	106	1086
						31%	619	1206
						96%	35	109
						100%	1083	1106

HDPXP07	1015059	blastx.2	(AK000370) unnamed protein product [Homo sapiens]	dbj|BAA91118.1|	64%	3	215
HE2KH02	1015093	blastx.2	(AL137756) hypothetical protein [Homo sapiens]	emb|CAB70908.1|	99%	1	615
HSPSI60	1015133	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	67%	5	319
HOCOC26	1015143	blastx.2	(AE001691) conserved hypothetical protein [Thermotoga maritima]	gb|AAD35130.1|AE001691_4	40% 41%	136 136	690 543
HHEDC05	1015204	blastx.2	Lipoprotein RlpA precursor. [Escherichia coli]	dbj|BAA35276.1|	98%	867	61
HODES86	1015304	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	57%	125	364
HOPJU57	1015324	blastx.2	SELENOPROTEIN W.	sp|O15532|SELW_HUMAN	98%	934	1164
HVCAC71	1015343	blastx.2	alcohol dehydrogenase class III [Homo sapiens]	gb|AAA51597.1|	99%	41	1204
HSXCO55	1015360	blastx.2	coronin-like protein [Schizosaccharomyces pombe]	emb|CAB11184.1|	33% 28% 30% 24% 30%	159 1258 2063 991 1533	971 1575 2428 1263 1736
HLWDB78	1015430	blastx.2	(AK001322) unnamed protein product [Homo	dbj|BAA91623.1|	95% 56%	30 613	602 681

				Description	Accession	%		
HPCQU04	1015563	517	blastx.2	sapiens] (AF093414) estrogen response element binding protein [Saguinus oedipus]	gb|AAC77437.1|	98%	315	1232
						73%	1232	1390
						77%	1309	1362
						30%	282	518
HDPAT52	1015574	518	blastx.2	(AF056191) TPA inducible protein [Homo sapiens]	gb|AAC12944.1|	99%	122	1054
						42%	290	1054
						45%	467	1018
						38%	458	1030
						37%	467	1030
						37%	473	1024
						36%	473	1024
						34%	467	1024
HAOSL81	1015620	519	blastx.2	P24 protein [Mus musculus]	dbj|BAA18947.1|	41%	139	549
						32%	815	970
HMWIU46	1015814	520	blastx.2	(AF148457) heterogeneous nuclear ribonucleoprotein, alternate transcript [Homo sapiens]	gb|AAF04487.1|AF148457_1	99%	232	1152
HSXCQ19	1015994	521	blastx.2	(AC006486) BC85722_1 [Homo sapiens]	gb|AAD11988.1|	90%	3	1175
						37%	880	1203
						25%	30	515
						29%	595	867
						30%	15	299
						28%	63	284
						25%	523	888
						47%	341	397
HNOAG06	1016272	522	blastx.2	(AF001947) U4/U6-associated RNA	gb|AAC09069.1|	100%	340	546

				splicing factor [Homo sapiens]				
HE2KN09	1016351	523	blastx.2	(AF095446) syndesmos [Gallus gallus]	gb|AAF29566.1|AF0 95446_1	75%	24	680
HISDH58	1016740	524	blastx.2	(AF060570) rig-1 protein [Mus musculus]	gb|AAD11628.1|	70% 65% 48%	69 55 1058	1313 210 1222
HSPSB62	1016768	525	blastx.2	(AB016533) nuclear protein containing a WW domain (Npw38) [Homo sapiens]	dbj|BAA76400.1|	100%	196	990
HE2FR37	1016939	526	blastx.2	(AF213393) ATP-binding cassette protein [Mus musculus]	gb|AAF31432.1|	73%	247	726
HBJHU33	1017051	527	blastx.2	(AK001775) unnamed protein product [Homo sapiens]	dbj|BAA91901.1|	99%	82	618
HCOQZ88	1017227	528	blastx.2	(AF027299) protein 4.1-G [Homo sapiens]	gb|AAC16923.1|	100% 47%	225 3	1196 722
HNTSV21	1017374	529	blastx.2	seryl-tRNA synthetase [Homo sapiens]	emb|CAA62635.1|	95% 90%	712 3	1008 32
HNORH33	1017461	530	blastx.2	(AJ132637) ATP-dependent metalloprotease YME1L [Homo sapiens]	emb|CAB51858.1|	99%	255	2063
HUFEF35	1017565	531	blastx.2	precursor polypeptide (AA -21 to 782) [Homo sapiens]	emb|CAA33261.1|	99% 100% 35%	303 2527 1083	2123 3048 1166

HJPCG39	1017694	532	blastx.2	(AF118078) PRO1848 [Homo sapiens]	gb|AAF22022.1|AF1 18094_17	65% / 45%	17 / 142	139 / 240
HISBM03	1017772	533	blastx.2	(AF092576) translation initiation factor eIF3 p40 subunit; 1	gb|AAC84044.1|	100%	751	924
HOFAA79	1017801	534	blastx.2	(AF134404) delta-6 fatty acid desaturase [Homo sapiens]	gb|AAD31282.1|AF1 34404_1	88% / 83%	14 / 505	532 / 885
HPRAJ96	1017825	535	blastx.2	growth-regulating protein [Homo sapiens]	gb|AAA18898.1|	100% / 100%	690 / 653	824 / 685
HBXFX71	1018032	536	blastx.2	(AF071081) proline-rich mucin homolog [Mycobacterium tuberculosis]	gb|AAD41594.1|AF0 71081_1	32% / 30%	1 / 1	597 / 633
HMVDD8 1	1018080	537	blastx.2	(AF161477) HSPC128 [Homo sapiens]	gb|AAF29092.1|AF1 61477_1	99%	23	745
HVVDH50	1018226	538	blastx.2	zyxin [Homo sapiens]	emb|CAA64447.1|	100% / 100% / 32% / 21% / 32% / 45% / 24%	143 / 1330 / 1303 / 662 / 134 / 1822 / 5	1327 / 1857 / 1455 / 1336 / 346 / 1914 / 295
HNNBT57	1018243	539	blastx.2	(AK000372) unnamed protein product [Homo sapiens]	dbj|BAA91120.1|	54% / 28% / 30%	194 / 355 / 363	45 / 230 / 244
HCONJ11	1018459	540	blastx.2	(AF083385) 30kDa splicing factor; SPF 30 [Homo sapiens]	gb|AAC64086.1|	100%	186	899
HCQAW6	1018501	541	blastx.2	(AK000010) unnamed	dbj|BAA90881.1|	100%	104	436

				protein product [Homo sapiens]				
8						100%	1198	1293
						96%	1381	1455
HVVCY25	1018772	542	blastx.2	almost identical to nRNP M protein, acc.L03532 [Homo sapiens]	emb|CAA50897.1|	98%	409	1059
						56%	418	792
						47%	394	711
						48%	418	810
HCOMB65	1018802	543	blastx.2	dJ68O2.2 (myosin, heavy polypeptide 9, non-muscle) [Homo sapiens]	emb|CAB05105.1|	99%	332	1204
						100%	1803	2600
						100%	1204	1800
						26%	1725	2486
						63%	19	246
						23%	332	1237
						23%	335	1243
						25%	341	1183
						23%	332	1156
						23%	1803	2588
						22%	332	1147
						22%	332	1195
						25%	332	1195
						23%	332	1201
						23%	299	1249
						22%	1734	2531
						23%	1204	1746
						27%	1207	1791
						21%	1219	1767
						22%	335	1198
						30%	1258	1788
						22%	1794	2588
						23%	491	1204
						19%	335	1237

1824	1291	23%
1815	1285	25%
470	138	40%
1198	332	22%
919	290	23%
1800	1192	23%
1246	338	22%
1773	1219	18%
1210	353	22%
1791	1204	25%
1788	1219	25%
2435	1809	22%
1249	320	23%
2477	1806	23%
1791	1204	26%
2471	1806	23%
2489	1809	18%
1785	1207	21%
1237	332	18%
1794	1207	19%
2486	1881	27%
2480	1833	22%
1800	1207	22%
1872	1219	23%
1788	1195	20%
1776	1219	23%
1785	1339	23%
1800	1222	26%
2462	1806	26%
1800	1210	23%

1549

Gene	Clone	Method	Description	Accession	%		
					22%	1204	1788
					23%	1237	1803
					18%	1189	1767
					25%	611	1183
					25%	1228	1473
					29%	1222	1440
					31%	1714	1800
					35%	67	228
					27%	1684	1803
					31%	115	237
					28%	61	216
					26%	67	225
					24%	258	401
					19%	34	234
					28%	249	344
					26%	1192	1305
HVVCF30	1018907	blastx.2	(AF010144) neuronal thread protein AD7c-NTP [Homo sapiens]	gb|AAC08737.1|	53%	121	387
					61%	118	294
					69%	149	295
					62%	3	131
					59%	284	349
					53%	42	128
					47%	282	380
HODBV21	1018943	blastx.2	(AC004537) similar to tumor suppressor p33ING1; similar to AF044076 (PID:g2829208) [Homo sapiens]	gb|AAC12956.1|	99%	151	861
HCHMD81	1019326	blastx.2	(AL023859) tma-	emb|CAA19575.1|	42%	733	945

Clone	ID	SEQ	Method	Description	Accession	%		
				splicing endonuclease subunit [Schizosaccharomyces pombe]		29%	85	423
HAZAR95	1019338	547	blastx.2	phosphate carrier protein [Homo sapiens]	emb|CAA42641.1|	100%	110	1192
HMWFS51	1019409	548	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj|BAA25253.1|	41% 54% 42%	314 71 648	607 277 704
HE8SD82	1019585	549	blastx.2	(AL035494) dJ635G19.2.1 (novel protein (isoform 1)) [Homo sapiens]	emb|CAB44749.1|	99%	13	570
HSPSN08	1019608	550	blastx.2	(AF161491) HSPC142 [Homo sapiens]	gb|AAF29106.1|AF1 61491 1	100% 99%	134 918	919 1235
HVCAH24	1019749	551	blastx.2	(AC002394) Unknown gene product [Homo sapiens]	gb|AAC05810.1|	100%	103	468
HJPCF71	1019892	554	blastx.2	(AK000566) unnamed protein product [Homo sapiens]	dbj|BAA91259.1|	98%	234	830
HVCAE76	1019942	555	blastx.2	zinc finger protein [Rattus norvegicus]	emb|CAA42610.1|	48% 34% 50% 63%	576 72 1 89	2075 731 90 121
HOCMH14	1020007	556	blastx.2	(AL137618) hypothetical protein [Homo sapiens]	emb|CAB70844.1|	99% 78% 42%	298 1146 1871	1311 1730 1984
HPDRZ03	1020130	557	blastx.2	CCAAT-box DNA binding protein subunit	gb|AAA59930.1|	100%	-131	751

HOCPO73	1020180	558	blastx.2	NF-YB [Homo sapiens] protein p84 [Homo sapiens]	gb|AAA53571.1|	93% 97% 100% 42% 37%	3646 3881 3993 1832 1888	2024 3636 3940 1758 1841
HNKDT10	1020832	559	blastx.2	(AF191018) E2IG3 [Homo sapiens]	gb|AAF09482.1|AF1 91018 1	99% 93%	77 426	436 569
HWHGO2 5	1020841	560	blastx.2	(AF090942) PRO0657 [Homo sapiens]	gb|AAF24054.1|AF0 90942 1	68%	3	137
HWMNE3 1	1020852	561	blastx.2	(AF083384) 45kDa splicing factor; SPF 45 [Homo sapiens]	gb|AAC64085.1|	98%	169	675
HUSYJ75	1020878	562	blastx.2	(AJ242540) hydroxyproline-rich glycoprotein DZ-HRGP [Volvox carteri f. nagariensis]	emb|CAB62280.1|	33% 35% 34% 32% 34% 32% 31% 32% 29% 31% 30% 28% 34% 31%	67 67 67 67 67 67 67 67 64 67 64 64 184 184	684 624 624 684 624 714 696 624 714 654 654 696 624 783
HSDFS07	1020904	563	blastx.2	(AL033534) hypothetical serine-rich secreted protein	emb|CAA22127.1|	27%	981	118

				Description	Accession	%		
HCOPC09	1021208	564	blastx.2	[Schizosaccharomyces pombe]	emb|CAB55759.1|	95%	183	305
HVVBT22	1021323	565	blastx.2	(AJ245905) HSBP1-like protein [Chlorocebus aethiops]	emb|CAA80599.1|	100%	936	1649
HAMFW66	1021327	566	blastx.2	hnRNP G protein [Homo sapiens] (AF075704) neuronal glutamine transporter [Rattus 1]	gb|AAF34240.1|AF075704_1	89% 89% 100%	20 949 15	937 1227 53
HPMBW86	1021661	567	blastx.2	(AF129756) G4 [Homo sapiens]	gb|AAD18083.1|AAD18083	85%	3	614
HOFMK02	1021666	568	blastx.2	(AF038616) small tumor anitgen t-ag [Simian virus 40]	gb|AAC59341.1|	100%	159	230
HOUHK71	1021682	569	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	75%	429	268
HCOOW23	1021759	570	blastx.2	(AJ011376) hypothetical protein [Homo sapiens]	emb|CAB66159.1|	30%	210	689
HACMT02	1021794	571	blastx.2	ORF_o109 [Escherichia coli]	gb|AAA79814.1|	100%	209	3
HISDS67	1022018	572	blastx.2	(AK000633) unnamed protein product [Homo sapiens]	dbj|BAA91298.1|	60% 36% 43% 28% 24% 30% 38%	22 1139 1130 890 417 1277 1344	339 1318 1225 1327 950 1522 1484

					27%	1232	1372
					48%	590	682
					28%	1285	1455
					41%	1143	1193
HOVAA59	1022037	blastx.2	(AC002291) Similar ATP-dependent RNA Helicase [Arabidopsis thaliana]	gb|AAC00620.1|	59%	252	1319
	573				33%	1765	2421
					31%	1316	1585
					39%	1573	1770
					21%	1744	2211
					46%	1417	1506
					29%	1744	1917
					27%	1736	1966
					38%	1447	1536
					36%	1718	1813
HOCPL72	1022059	blastx.2	(AK001197) unnamed protein product [Homo sapiens]	dbj|BAA91548.1|	97%	38	1063
	574				92%	2402	2440
HCOMMO5	1022082	blastx.2	epidermal growth factor receptor kinase substrate [Homo sapiens]	gb|AAA62280.1|	46%	445	840
	575				43%	115	435
					23%	43	222
HLYDC86	1022162	blastx.2	(AF015040) NUMB protein [Homo sapiens]	gb|AAD01548.1|	100%	3	836
	576				100%	839	1570
HTLEP21	1022167	blastx.2	(AF081280) nucleoplasmin-3 [Homo sapiens]	gb|AAC31609.1|	97%	101	445
	577				100%	33	95
HVCAS77	1022313	blastx.2	ribonuclease HI large subunit [Homo sapiens]	emb|CAB09725.1|	99%	176	1072
	578						
HSKJP93	1022663	blastx.2	(AL050022) hypothetical protein	emb|CAB43242.1|	100%	2	247
	580						

HAZAA64	1022719	581	blastx.2	[Homo sapiens] predicted using Genefinder; Similarity to Prototheca 1 1 gene; cDNA EST.yk386c1.3 comes from this gene; cDNA EST yk38	emb|CAA99938.1|	43%	304	705
HSEBD72	1022904	582	blastx.2	(AF044773) breakpoint cluster region protein 1 [Homo sapiens]	gb|AAC08964.1|	89%	164	580
HDPYE27	1022911	583	blastx.2	(AF062346) zinc finger protein 216 splice variant 1 [Homo sapiens]	gb|AAC42601.1|	100%	428	1066
HCRQL51	1022997	584	blastx.2	PEG1/MEST [Homo sapiens]	emb|CAA72297.1|	100%	50	1030
HDTCC55	1023046	585	blastx.2	(AL117483) hypothetical protein [Homo sapiens]	emb|CAB55956.1|	33% 35% 42%	306 4 105	533 105 182
HOOJQ91	1023049	586	blastx.2	envelope protein [Homo sapiens]	gb|AAA88027.1|	63%	3	530
HCE4K28	1023227	587	blastx.2	(AF021792) Bcl-X/Bcl-2 binding protein [Homo sapiens]	gb|AAB72092.1|	98%	262	750
HPDVY62	1023264	588	blastx.2	DOCK180 protein [Homo sapiens]	dbj|BAA09454.1|	99%	2	1126
HLHDK42	1023339	589	blastx.2	modifier 2 [Mus musculus]	emb|CAA40012.1|	61% 85%	58 3	300 62
HLDRQ55	1023375	590	blastx.2	coiled-coil like protein	gb|AAB61902.1|	98%	5	388

						%		
HVVBI06	1023414	591	blastx.2	1 [Mus musculus] (AF064603) GA17 protein [Homo sapiens]	gb|AAC17108.1|	97% 96%	93 1359	647 637
HOCME51	1023422	592	blastx.2	(AK001103) unnamed protein product [Homo sapiens]	dbj|BAA91503.1|	98% 96% 97%	14 319 498	313 492 623
HPDOP74	1023531	593	blastx.2	(AF104670) cell cycle protein [Homo sapiens]	gb|AAD05561.1|	100%	173	1354
HMSOH12	1023545	594	blastx.2	chaperonin-like protein [Homo sapiens]	gb|AAA61061.1|	100%	1	1077
HOPJG50	1023584	595	blastx.2	ribosomal protein L34 [Homo sapiens]	gb|AAC41916.1|	97%	157	507
HDUAB04	1023585	596	blastx.2	ribosomal protein L34 [Homo sapiens]	gb|AAC41916.1|	97%	21	371
HVCAA38	1023632	597	blastx.2	TREB protein [Homo sapiens]	emb|CAA39149.1|	100%	36	818
HIBCN87	1023837	598	blastx.2	(AF006264) recombination and sister chromatid cohesion protein homolog [Homo sapiens]	gb|AAD01193.1|	96% 92% 79% 100% 67% 28% 33% 40% 38% 36% 35%	1 1160 1332 1582 969 88 202 250 1169 331 969	1017 1300 1478 1665 1070 972 471 417 1315 510 1028
HPCOM04	1024000	599	blastx.2	vacuolar H+ ATPase E subunit [Homo sapiens]	emb|CAA53814.1|	100%	141	818

							804	1061
HPAME01	1024332	601	blastx.2	(AL109978) hypothetical protein [Homo sapiens]	emb|CAB53376.1|	98%		
HTTJS76	1024472	602	blastx.2	N-WASP [Homo sapiens]	dbj|BAA20128.1|	97% 68%	3 6	392 44
HCORI57	1024556	603	blastx.2	39 kDa encoded by N33 [Homo sapiens]	gb|AAB18374.1|	97% 57%	200 198	1231 275
HNORG50	1024624	604	blastx.2	(AF006084) p41-Arc [Homo sapiens]	gb|AAB64189.1|	98% 66%	62 1029	1027 1112
HWLVR07	1024915	605	blastx.2	(AL050273) hypothetical protein [Homo sapiens]	emb|CAB43374.1|	100%	203	517
HOPKF60	1025047	606	blastx.2	(AJ249366) epsilon-COP protein [Homo sapiens]	emb|CAB55628.1|	100%	48	971
HBDAD74	1025102	607	blastx.2	(AL031640) /prediction=(method:"" genscan"", version:""1.0"",1 1 1 target:SPTREMBL::O6 087	emb|CAA21052.1|	39%	2	403
HPCTY12	1025231	608	blastx.2	(AB015597) hTIM1 [Homo sapiens]	dbj|BAA36499.1|	96%	68	1225
HFASF12	1025327	609	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	64%	251	3
HLIBM71	1025359	610	blastx.2	(AF110776) adrenal gland protein AD-003 [Homo sapiens]	gb|AAF14859.1|AF1 10776_1	98% 100%	183 512	512 766

HNOKW27	1025366	blastx.2	F35C11.4 [Caenorhabditis elegans]	emb|CAA90244.1|	30% 31%	162 743	632 1060
HPFDG48	1025526	blastx.2	(AF083242) HSPC024-iso [Homo sapiens]	gb|AAD39840.1|	88% 90%	313 564	387 623
HVVBF24	1025712	blastx.2	TRAM protein [Homo sapiens]	emb|CAA45218.1|	100%	175	1296
HE8UF88	1025745	blastx.2	retinoblastoma-binding protein mRbAp48 [Mus musculus]	gb|AAC52275.1|	96% 40%	124 1391	1473 1495
HOUBC29	1025749	blastx.2	GTP-binding protein (rab2) [Canis familiaris]	gb|AAA30888.1|	100%	444	719
HOCPY47	1025965	blastx.2	(AF055010) unknown [Homo sapiens]	gb|AAC09360.1|	99% 92%	1567 1337	2760 1594
HOVKE20	1025990	blastx.2	follistatin-related protein FLRG [Homo sapiens]	gb|AAC64321.1|	100%	36	824
HODBK27	1026372	blastx.2	(AF054284) spliceosomal protein SAP 155 [Homo sapiens]	gb|AAC97189.1|	100%	123	497
HE8CH59	1026805	blastx.2	(AK001093) unnamed protein product [Homo sapiens]	dbj|BAA91500.1|	100% 100% 31% 36%	1913 1654 1994 2405	2632 1848 2689 2755
HSKGR52	1026911	blastx	putative glycosyl transferase [Schizosaccharomyces pombe]	emb|CAB10854.1|	55% 76% 42% 40%	488 389 272 92	616 439 376 202

HMUAQ05	1026913	622	blastx.2	(AF151825) CGI-67 protein [Homo sapiens]	gb|AAD34062.1|AF1 51825_1	74%	54	524
HCOMA45	1026979	623	blastx.2	(AF113685) PRO0974 [Homo sapiens]	gb|AAF29584.1|AF1 13685_1	51% 66%	557 601	378 566
HE2KI45	1027007	624	blastx.2	(AF161553) HSPC068 [Homo sapiens]	gb|AAF29040.1|AF1 61553_1	99%	6	1565
HODDO66	1027207	625	blastx.2	S-adenosylmethionine synthetase [Homo sapiens]	emb|CAA48726.1|	78% 94% 52%	35 865 7	241 975 63
HVVAT45	1027269	626	blastx.2	(AF102265) N-acetylglucosamine-phosphate mutase [Homo sapiens]	gb|AAC72409.1|	100% 100%	275 74	1117 277
HVCAG18	1027484	627	blastx.2	(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens]	emb|CAB37641.1|	100%	22	393
HPTXK72	1027486	628	blastx.2	(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens]	emb|CAB37641.1|	100%	91	462
HDTLR06	1029191	630	blastx.2	(AF132552) BcDNA.GM01838 [Drosophila melanogaster]	gb|AAD27851.1|AF1 32552_1	73%	123	1004
HPAMG11	1029484	631	blastx.2	BB1=malignant cell expression-enhanced gene/tumor 1 line, Peptide, 342 aa] [Homo sapiens]	gb|AAB37433.1|	99%	2	667

HSDJR27	1030870	blastx.2	(AL137520) hypothetical protein [Homo sapiens]	emb|CAB70786.1|	100%	52	1176
HOCPL33	1030871	blastx.2	extensin [Volvox carteri]	emb|CAA46283.1|	32% 35% 33% 32% 45% 34% 48% 36%	1097 1037 1040 1094 1747 1735 566 74	1516 1429 1420 1429 1899 1881 640 130
HPCQN80	1030963	blastx.2	ha1025 is new [Homo sapiens]	dbj|BAA07552.1|	99% 96%	95 1	2158 96
HODFZ16	1031085	blastx.2	(AB033168) nuclear protein ZAP [Mus musculus]	dbj|BAA85182.1|	86%	349	462
HWGAE28	1031316	blastx.2	member of DEAD box protein family [Homo sapiens]	emb|CAA49992.1|	99%	52	2271
HOFNZ21	1031328	blastx.2	valosin-containing protein [Sus scrofa]	gb|AAA31142.1|	65%	259	423
HOOKH25	1031329	blastx.2	(AC004472) TERA_HUMAN [Homo sapiens]	gb|AAC07984.1|	100%	279	2696
HDTIL75	1031435	blastx.2	(AK000031) unnamed protein product [Homo sapiens]	dbj|BAA90894.1|	99%	22	1092

HPRSB55	1031451	blastx.2	(AF168418) activating signal cointegrator 1 [Homo sapiens]	gb|AAF01278.1|	99%	9	1751
HPDPY36	1031606	blastx.2	(AF125182) single-strand selective monofunctional uracil DNA glycosylase [Homo sapiens]	gb|AAD17301.1|	100%	512	631
HETFJ47	1031922	blastx.2	(AF020797) AP-mu chain family member mu1B [Homo sapiens]	gb|AAD25870.1|AF0 20797_1	99%	60	1328
HMAMI21	1031988	blastx.2	hypothetical protein Rv0712 [Mycobacterium tuberculosis]	emb|CAB06436.1|	41%	365	1204
HCOQQ85	1032475	blastx.2	S100 calcium-binding protein A13 (S100A13) [Homo sapiens]	emb|CAA68188.1|	100%	379	672
HE2DQ62	1033653	blastx.2	putative T1/ST2 receptor binding protein precursor [Homo sapiens]	gb|AAC50419.1|	98%	105	785
HEBAE89	1034320	blastx.2	(AK000264) unnamed protein product [Homo sapiens]	dbj|BAA91040.1|	97%	260	400
HKDBF43	1034471	blastx.2	(AL049705) hypothetical protein [Homo sapiens]	emb|CAB41269.1|	100%	48	431
HVVCT43	1034539	blastx.2	novel ORF [Homo sapiens]	gb|AAB72234.1|	91% 100%	700 633	801 698

HTTDR30	1035435	650	blastx.2	(AF214634) polyA binding protein [Homo sapiens]	gb|AAF19993.1|AF2 14634_1	91%	806	841
						48%	693	986
HODGO46	1035602	651	blastx.2	unknown protein [Homo sapiens]	gb|AAA88036.1|	38%	468	115
HNTTB23	1035988	652	blastx.2	(AJ246001) spastin protein [Homo sapiens]	emb|CAB60141.1|	99%	93	974
HVVBV73	1036583	653	blastx.2	(AF013249) leukocyte-associated Ig-like receptor-1 [Homo 1	gb|AAB69324.1|	100%	439	1299
HTEPV42	1036973	655	blastx.2	(AK001738) unnamed protein product [Homo sapiens]	dbj|BAA91872.1|	99%	1	435
HFTCG52	1037108	656	blastx.2	(AF117723) seed maturation protein PM27 [Glycine max]	gb|AAD30426.1|AF1 17723_1	30%	286	786
HKAOB40	1037131	657	blastx.2	predicted using Genefinder; Similarity to Drosophila RNA 1 this gene [Caenorhabditis elegans]	emb|CAB01127.1|	32%	73	357

HPDVE37	1037303	blastx.2	cathepsin C [Homo sapiens]	emb|CAA60671.1|	100%	118	885
HTLES74	1037438	blastx.2	GAP-associated protein p190 - rat	pir|A38218|A38218	74% 56% 63% 41%	50 681 15 43	811 875 152 171
HCORG51	1037480	blastx.2	ubiquitin-like protein [Bos taurus]	gb|AAB49682.1|	100%	150	434
HPAMM7 2	1038344	blastx.2	nucleoside-diphosphate kinase [Homo sapiens]	emb|CAA68877.1|	99%	44	520
HKZAT03	1038378	blastx.2	endothelial cell growth factor [Homo sapiens]	gb|AAA60043.1|	100%	114	1559
HDQMA8 5	1038717	blastx.2	glutathione S-transferase [Homo sapiens]	gb|AAA35934.1|	100% 100%	234 110	356 235
HVCCQ82	1038718	blastx.2	glutathione S-transferase [Homo sapiens]	gb|AAA35934.1|	100%	114	578
HTGFP54	1038915	blastx.2	(AL080156) hypothetical protein [Homo sapiens]	emb|CAB45747.1|	94%	415	525
HBQDF41	1039017	blastx.2	beta-spectrin [Homo sapiens]	gb|AAA60580.1|	99% 20% 21% 22% 19% 22% 60%	1 7 28 16 1 184 2127	2172 2091 2151 2187 2118 2193 2351
HPAMC60	1039290	blastx.2	TRAF4-associated factor 2 [Homo	gb|AAD24202.1|U83 194 1	100%	31	1242

HLMHM83	1039491	blastx.2	sapiens] (AK001123) unnamed protein product [Homo sapiens]	dbj|BAA91513.1|	44%	158	616
HOUDK70	1039538	blastx.2	(AF091083) unknown [Homo sapiens]	gb|AAC72952.1|	100%	285	1142
HMEFK29	1039652	blastx.2	(AC002398) F25965_1 [Homo sapiens]	gb|AAB81199.1|	54% 100%	808 1	993 48
HAOSK79	1039663	blastx.2	(AJ223953) hPTTG [Homo sapiens]	emb|CAA11683.1|	100%	54	659
HPDRV42	1039689	blastx.2	P58 [Homo sapiens]	gb|AAC50331.1|	100%	135	1649
HOPJD35	1039703	blastx.2	(AF035262) BAF57 [Homo sapiens]	gb|AAC04509.1|	100%	121	1353
HTFNP84	1039748	blastx.2	ect2 [Mus musculus]	gb|AAA37536.1|	94% 42%	73 27	1227 125
HTHDT76	1039871	blastx.2	(AL117404) hypothetical protein [Homo sapiens]	emb|CAB55905.1|	98%	7	564
HSYEC21	1039891	blastx.2	adenosine triphosphatase [Homo sapiens]	gb|AAA35999.1|	99% 96% 37%	432 1 3819	2372 435 3890
HKGCO25	1040384	blastx.2	NAP [Homo sapiens]	gb|AAC37544.1|	99%	3	665
HNOJN70	1040385	blastx.2	(AF062594) nucleosome assembly protein [Rattus norvegicus]	gb|AAC67388.1|	100%	297	425
HADFS31	1040388	blastx.2	(AF214680) C3HC4-like zinc finger protein [Homo sapiens]	gb|AAF30180.1|	88% 92%	449 145	832 504

HJBDC89	1040569	blastx.2	nonhepatic arginase [Homo sapiens]	dbj|BAA13158.1|	100% 97%	113 651	661 1175
HTAIX75	1040591	blastx.2	(AK000897) unnamed protein product [Homo sapiens]	dbj|BAA91413.1|	47%	303	557
HODBO29	1040620	blastx.2	thioesterase II [Homo sapiens]	emb|CAA60024.1|	63%	84	527
HOCOF27	1040631	blastx.2	zinc-finger helicase [Homo sapiens]	gb|AAC39923.1|	91%	277	687
HSPSE88	1040694	blastx.2	tumor susceptibility protein [Homo sapiens]	gb|AAC52083.1|	100% 52%	110 68	922 175
HSKXM78	1040826	blastx.2	(AK001550) unnamed protein product [Homo sapiens]	dbj|BAA91751.1|	63% 75% 31%	1 108 505	654 398 618
HNLMB92	1040913	blastx.2	protein of unknown function [Homo sapiens]	gb|AAA63232.1|	96%	355	666
HE8ON57	1040925	blastx.2	(AF005855) anon2A5 [Drosophila melanogaster]	gb|AAB81486.1|	26%	50	415
HOCOC14	1040932	blastx.2	protein antigen [synthetic construct]	emb|CAA01182.1|	100%	539	1384
HOGDP49	1041049	blastx.2	bcn92 [Drosophila subobscura]	emb|CAB55311.1|	55%	226	474
HOFMK22	1041070	blastx.2	(AF161479) HSPC130 [Homo sapiens]	gb|AAF29094.1|AF161479_1	94%	3	356
HBGNT69	1041900	blastx.2	NF-AT3 gene product [Homo sapiens]	gb|AAA79175.1|	100% 71% 39%	111 3 421	428 212 612

					40%	455	586
HSPSI42	1042462	blastx.2	ubiquitin-activating enzyme E1 [Homo sapiens]	gb|AAA61246.1|	100%	259	3432
HPDQD23	1042649	blastx.2	(AF055470) ZNF258 [Homo sapiens]	gb|AAD15797.1|	65%	174	338
HWMBA10	1042859	blastx.2	Mel-18 protein [Homo sapiens]	dbj|BAA03074.1|	95%	2717	2256
HETKL27	1042951	blastx.2	unknown [Homo sapiens]	gb|AAA76738.1|	40%	188	637
HPCTH04	1043273	blastx.2	ATL-derived factor/thioredoxin [Homo sapiens]	emb|CAA54687.1|	100%	180	494
HVVBM94	1043532	blastx.2	pre-pump-1 proteinase (AA -17 to 250) [Homo sapiens]	emb|CAA30678.1|	100%	52	852
HVVBC43	1043553	blastx.2	(AB000468) zinc finger protein [Homo sapiens]	dbj|BAA19122.1|	100%	301	870
HTPDM31	1044199	blastx.2	proline-rich protein MP2 - mouse (fragment)	pir|A24264|A24264	31% 34% 33% 34% 53% 39% 39% 39%	632 584 632 620 742 790 790 790	48 51 138 225 659 659 659 659

HSQEK12	1044577	704	blastx.2	similar to Human Sp2 protein (M97190) [Homo sapiens]	dbj|BAA05923.1|	41% 38%	790 790	662 662
HPDRZ16	1044618	705	blastx.2	(AF106473) leucine-rich-domain inter-acting protein 1; LeR 1	gb|AAD17989.1|	89% 48%	53 1	439 93
HVCBC44	1044635	706	blastx	CTP synthetase homolog [Mus musculus]	gb|AAB17729.1|	77%	3	896
HPIAC22	1044711	707	blastx.2	D-E-A-D box protein [Drosophila melanogaster]	gb|AAC14192.1|	42% 47%	749 20	1738 493
HSODA53	1044741	708	blastx.2	(AF213393) ATP-binding cassette protein [Mus musculus]	gb|AAF31432.1|	68% 73%	1316 1101	1657 1319
HE9ML74	1044760	709	blastx.2	coded for by C. elegans cDNA yk34b1.5; coded for by C. elegans 1 1 coded for by C. elegans cDNA yk46e8.3; coded fo	gb|AAB00699.1|	77% 41% 52% 21% 31%	940 465 6 315 450	1269 932 260 614 593
HPDRB76	1044762	710	blastx.2	adenylate kinase 2B [Homo sapiens]	gb|AAC13881.1|	100%	160	855
HSYDI55	1044769	711	blastx.2	(AF151819) CGI-61 protein [Homo sapiens]	gb|AAD34056.1|AF1 51819 1	100% 97%	309 1067	1067 1174
HOGCI31	1044821	712	blastx.2	(AL110271) hypothetical protein [Homo sapiens]	emb|CAB53709.1|	96%	34	558

HNOKX86	1044893	713	blastx.2	(AF092138) HSPC033 [Homo sapiens]	gb|AAD40380.1|	100%	303	575
HTPHG81	1045117	714	blastx.2	(AL117402) hypothetical protein [Homo sapiens]	emb|CAB55903.1|	100%	537	1538
HPCTV49	1045379	715	blastx.2	ribosomal protein [Homo sapiens]	gb|AAA36589.1|	100%	127	444
HHGDK68	1045464	716	blastx.2	(AL020993) dJ5O6.1 (casein kinase 1, epsilon) [Homo sapiens]	emb|CAA15888.1|	89% 100%	124 765	858 1013
HNOKM38	1045500	717	blastx.2	transducin (beta) like 1 protein [Homo sapiens]	emb|CAA73319.1|	99%	120	1640
HHFUN47	1045842	718	blastx.2	(AF099028) putative transmembrane protein cmp44E [Drosophila melanogaster]	gb|AAD12254.1|	49% 52% 27% 83%	2 2 1007 865	1135 952 2368 882
HE9EJ82	1046856	722	blastx.2	beta-signal sequence receptor [Homo sapiens]	dbj|BAA07206.1|	96%	24	173
HODHS68	1047137	724	blastx.2	(AK000826) unnamed protein product [Homo sapiens]	dbj|BAA91390.1|	99%	528	1220

HOPKT59	1047169	725	blastx.2	sapiens] p23 [Homo sapiens]	gb|AAA18537.1|	100%	335	814
HMCFK45	1047212	726	blastx.2	(AF182844) VPS28 protein [Homo sapiens]	gb|AAF00499.1|AF182844_1	100%	124	786
HPIAN63	1047381	727	blastx.2	(AF011792) cell cycle progression 2 protein [Homo sapiens]	gb|AAB69312.1|	100% 94% 78% 26% 38% 30%	206 586 770 107 762 589	586 786 892 505 935 687
HNSME49	1047403	728	blastx.2	predicted using Genefinder [Caenorhabditis elegans]	emb|CAB04731.1|	55%	114	554
HWEAC64	1047473	729	blastx.2	ORF X (AA 1 - 393) [Escherichia coli]	emb|CAA31134.1|	98%	167	700
HOCQI51	1047483	730	blastx.2	(AB034912) WD-repeat like sequence [Homo sapiens]	dbj|BAA92312.1|	99% 96% 46% 46%	99 967 939 1081	1004 1479 977 1119
HOPKE15	1047634	731	blastx.2	putative RNA-binding protein [Schizosaccharomyces pombe]	emb|CAB11047.1|	36% 30%	509 141	1432 401
HMAEL73	1047646	732	blastx.2	(AL157427) hypothetical protein [Homo sapiens]	emb|CAB75652.1|	100%	754	2463
HNOKE42	1047663	733	blastx.2	(AF116272) T-cell activation protein [Homo sapiens]	gb|AAD38498.1|AF116272_1	100%	65	445

HOFAE31	1047670	734	blastx.2	ubiquinol--cytochrome-c reductase (EC 1.10.2.2) 11K protein - bovine	pir|A00119|CCBO11	93% 92%	2 180	181 221
HNOAC93	1047820	736	blastx.2	(AB016092) RNA binding protein [Homo sapiens]	dbj|BAA83718.1|	100%	69	305
HMEJA45	1047848	737	blastx.2	(AF091242) ATP sulfurylase/APS kinase 2 [Homo sapiens]	gb|AAC64583.1|	87%	166	399
HLDAS11	1047937	738	blastx.2	Similar to Human C219-reactive peptide (L34688) [Homo sapiens]	dbj|BAA13448.1|	99% 91% 32%	233 52 503	958 249 907
HWMJB31	1048009	739	blastx.2	DARPP-32=DOPAMINE AND CAMP-REGULATED PHOSPHOPROTEIN.	sp|G545790|G545790	94%	169	729
HAZAA31	1048188	740	blastx.2	transketolase [Homo sapiens]	gb|AAA98961.1|	100% 76%	778 92	1959 1033
HOCMC83	1048300	741	blastx.2	hypothetical protein [Schizosaccharomyces pombe]	emb|CAB11599.1|	30%	446	1279
HCFCS40	1048427	742	blastx.2	(AK001123) unnamed protein product [Homo sapiens]	dbj|BAA91513.1|	46%	17	1231
HVCAA65	1048595	743	blastx.2	(AF022815) proteasome subunit XAPC7 [Homo sapiens]	gb|AAB81515.1|	100%	191	934

HSPSI76	1048635	744	blastx.2	prolyl 4-hydroxylase alpha (II) subunit [Homo sapiens]	gb|AAB71339.1|	99%	208	1578
HVVCH35	1048658	745	blastx.2	(AF177385) cytochrome c oxidase assembly protein isoform 2 [Homo sapiens]	gb|AAF05313.1|AF1 77385_1	99%	436	1233
HOFNI66	1048739	746	blastx.2	signal peptidase complex 25 kDa subunit [Canis familiaris]	gb|AAA21254.1|	95%	33	710
HMSKI90	1048792	747	blastx.2	unknown protein [Homo sapiens]	gb|AAA88038.1|	39% 28% 45% 100%	3258 1452 2039 327	2377 1180 1944 310
HSYBI49	1049151	748	blastx.2	(AF101051) senescence-associated epithelial membrane protein [Homo sapiens]	gb|AAD16433.1|	100%	173	805
HTXSN37	1049372	749	blastx.2	(AL080159) hypothetical protein [Homo sapiens]	emb|CAB45750.1|	47% 46%	1154 408	1861 530
HMUBT31	1049466	750	blastx.2	serine palmitoyltransferase, subunit I [Homo sapiens]	emb|CAA69941.1|	100%	11	1429
HFPDO90	1049644	751	blastx.2	Similarity to yeast hypothetical protein PIR accession number	emb|CAA94801.1|	100%	516	611

				1 1 this gene; cDNA EST yk504c7.3 comes from this gene; cDN				
HVVCB79	1050102	752	blastx.2	urokinase [synthetic construct]	emb|CAA00829.1|	95% 96%	213 1067	1139 1504
HDPGR19	1050167	753	blastx.2	(AL031733) dJ455J7.1 (cellular repressor of E1A-stimulated genes CREG) [Homo sapiens]	emb|CAB42866.1|	100%	11	670
HVVDX63	1050256	754	blastx.2	interferon regulatory factor 1 [Homo sapiens]	gb|AAA36043.1|	100%	212	1186
HNOJA87	1050282	755	blastx.2	NUCLEAR FACTOR ERYTHROID 2 RELATED FACTOR 2 (NF-E2 1 ERYTHROID DERIVED 2, LIKE 2) (HEBP1).	sp|Q16236|NFL2_HU MAN	99%	643	2415
HTPGI65	1050419	756	blastx.2	ESX [Homo sapiens]	gb|AAB58075.1|	100%	161	1273
HHFGN14	1050536	757	blastx.2	DNA binding protein [Homo sapiens]	dbj|BAA08565.1|	99% 97% 53% 31% 32% 40% 28% 46%	1818 405 121 203 465 3017 1464 2939	2738 995 810 421 833 3136 1784 2983
HTAIN76	1050553	758	blastx.2	(AF016903) agrin precursor [Homo	gb|AAC39776.1|	98% 96%	371 3	1300 416

				sapiens]		36% 32% 45% 31% 38% 40% 26% 32% 35% 27% 58% 40% 58%	614 614 3 3 386 426 98 465 19 1125 3 541 155	1252 1291 416 440 721 557 430 665 198 1331 38 648 196
HLYBO89	1050702	759	blastx.2	caltractin [Homo sapiens]	emb|CAA51467.1|	100%	42	557
HMEKJ82	1050767	760	blastx.2	serine/threonine protein kinase Krs-1 [Homo sapiens]	gb|AAB17261.1|	95%	196	597
HOFNX17	1050969	761	blastx.2	annexin I [Oryctolagus cuniculus]	gb|AAC78495.1|	91% 45%	188 571	574 672
HAOSY21	1051095	762	blastx.2	(AF151048) HSPC214 [Homo sapiens]	gb|AAF36134.1|AF151048_1	85%	174	569
HMWDB39	1051115	763	blastx.2	V-1 protein [Rattus norvegicus]	dbj|BAA05167.1|	99%	245	598
HAOSZ53	1051246	764	blastx.2	(AF028823) Tax interaction protein 1 [Homo sapiens]	gb|AAB84248.1|	100%	56	403
HSODP14	1051256	765	blastx.2	p0071 protein [Homo sapiens]	emb|CAA57478.1|	82% 96% 53%	244 53 385	522 247 624

HWLXZ72	1051319	766	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	39% 34% 43%	452 187 84	580 300 152
HUSGQ45	1051410	767	blastx.2	(AK000101) unnamed protein product [Homo sapiens]	dbj|BAA90946.1|	64% 77% 100% 37%	413 886 18 246	159 860 527 539
HLDRA54	1051437	768	blastx.2	cellular nucleic acid binding protein [Mus musculus]	gb|AAB60490.1|	100% 86% 51% 51% 38%	362 175 365 353 365	676 360 661 598 658
HNOJR48	1051533	769	blastx.2	(AJ251914) putative RNA helicase [Sus scrofa]	emb|CAB63856.1|	100%	94	1377
HKIXH35	1051883	770	blastx.2	Huntington Disease (HD) gene exon 1 [Homo sapiens]	emb|CAA92991.1|	65% 47% 40% 56% 42%	5 3194 640 2905 607	82 3250 705 2952 669
HHEBJ92	1051903	771	blastx.2	mannitol permease [Escherichia coli]	emb|CAA24748.1|	100%	184	2094
HPTGB84	1051953	772	blastx.2	(AF151871) CGI-113 protein [Homo sapiens]	gb|AAD34108.1|AF1 51871 1	100%	93	668
HVCCD05	1051983	773	blastx.2	neurofibromin [Homo sapiens]	gb|AAA59925.1|	96%	18	968
HPYSC40	1052158	774	blastx.2	(AL050169) hypothetical protein	emb|CAB43305.1|	100%	20	583

						%		
HDDMT56	1052261	775	blastx.2	[Homo sapiens] (AF110775) adrenal gland protein AD-002 [Homo sapiens]	gb|AAF14858.1|AF1 10775_1	100%	158	844
HVVAW0 2	1052553	776	blastx.2	sorcin CP-22 [Homo sapiens]	gb|AAA60588.1|	100%	59	652
HOGCS42	1052557	777	blastx.2	(AB000712) CPE-receptor [Homo sapiens]	dbj|BAA22984.1|	100%	226	852
HAZAA59	1052593	778	blastx.2	CUG-BP/hNab50 [Homo sapiens]	gb|AAC50895.1|	90%	50	745
HMALJ21	1052874	780	blastx.2	(AC002397) C9 [Mus musculus]	gb|AAC36017.1|	52% 49% 40%	632 243 1826	1033 650 1915
HLYAR61	1053037	781	blastx.2	nuclear protein essential for dosage compensation [Caenorhabditis elegans]	gb|AAA92286.1|	64%	282	431
HLTCQ80	1053164	782	blastx.2	(AF064801) multiple membrane spanning receptor TRC8 [Homo sapiens]	gb|AAC39930.1|	87%	2	622
HDTDU67	1053171	783	blastx.2	54k protein (AA 1-504) [Canis familiaris]	emb|CAA34385.1|	100%	512	697
HMABL01	1053173	784	blastx.2	(AK001782) unnamed protein product [Homo sapiens]	dbj|BAA91907.1|	100%	609	1289

HACMU05	1053236	blastx.2	(AB002405) LAK-4p [Homo sapiens]	dbj|BAA24179.2|	99% 100% 60%	1804 1301 815	2631 1813 889
HOVDF79	1053369	blastx.2	pumilio protein [Drosophila melanogaster]	gb|AAB59189.1|	66% 28% 27%	39 42 42	653 518 521
HVVBJ54	1053547	blastx.2	CIRP [Homo sapiens]	dbj|BAA11212.1|	100%	95	610
HOFMU50	1053548	blastx.2	heparan sulfate 2-sulfotransferase [Cricetulus longicaudatus]	dbj|BAA20422.1|	90%	374	532
HE9MO38	1053585	blastx.2	phosphoenolpyruvate carboxykinase (GTP) [Homo sapiens]	emb|CAA72272.1|	100% 48% 53%	77 486 387	220 587 431
HOPJF55	1053725	blastx.2	microfibril-associated glycoprotein [Homo sapiens]	gb|AAA79920.1|	100%	150	698
HAOTD13	1053746	blastx.2	casein kinase-II beta [Oryctolagus cuniculus]	gb|AAA91892.1|	100%	164	808

HOCPT34	1053973	793	blastx.2	p0071 protein [Homo sapiens]	emb|CAA57478.1|	98%	1	2334
HFKHC64	1054015	794	blastx.2	(AF058448) herpesvirus entry protein B [Homo sapiens]	gb|AAC23797.1|	99%	178	1614
HOPKO37	1054085	795	blastx.2	drebrin E2 [Homo sapiens]	gb|AAA16256.1|	99%	2	1063
HNBVO53	1054122	796	blastx.2	p160 [Homo sapiens]	gb|AAC17708.1|	89% 46% 31% 36% 90% 31% 37%	50 639 1871 883 36 754 952	2332 1403 2380 1119 68 1101 1173
HCQDQ11	1054196	798	blastx.2	cytochrome c oxidase subunit 3 [Homo sapiens]	dbj|BAA77671.1|	93%	25	777
HTFML39	1054230	799	blastx.2	secreted cyclophilin-like protein [Homo sapiens]	gb|AAA36601.1|	100%	226	873
HOGCR32	1054235	800	blastx.2	similar to mouse CC1. [Homo sapiens]	dbj|BAA13194.1|	90% 62% 35%	15 160 128	110 204 169
HFCDL60	1054288	801	blastx.2	(AF005038) secretory carrier membrane protein [Homo sapiens]	gb|AAB62723.2|	99% 66%	152 2	919 46
HODEC13	1054400	802	blastx.2	(AC007059) Human homolog of Mus musculus wizL protein	gb|AAD19818.1|	87%	3	722

HUSYA18	1054451	803	blastx.2	[AA 4-1561] [Homo sapiens] DNA/RNA-binding protein [Homo sapiens]	gb|AAA75623.1|	89% 28% 76% 39% 47%	35 161 1 591 3	553 484 39 689 59
HOCON42	1054527	804	blastx.2	DYNAMIN 2.	sp|P50570|DYN2_H UMAN	95% 74% 30% 28% 38%	545 162 1276 1666 2190	1588 734 1638 1914 2246
HKMNH3 7	1054550	805	blastx.2	(AL031115) ZXDA, ZXDB (zinc finger X-linked protein) [Homo sapiens]	emb|CAB36858.1|	50%	37	720
HPDWP21	1054662	806	blastx.2	(AF178534) talin [Homo sapiens]	gb|AAF27330.1|	99% 78%	63 35	797 76
HOGCS52	1054677	807	blastx.2	(AJ245621) CTL2 protein [Homo sapiens]	emb|CAB75542.1|	99%	36	1388
HWMCK6 0	1054751	808	blastx.2	(AF125099) HSPC038 protein [Homo sapiens]	gb|AAD39916.1|AF1 25099 1	100%	258	485
HWLOU33	1054790	809	blastx.2	lac repressor protein (gtg start codon) [Escherichia coli]	gb|AAA24052.1|	96%	18	401
HKZBM58	1054812	810	blastx.2	sin3 associated polypeptide p18 [Homo sapiens]	gb|AAC51322.1|	100%	126	584
HTEOV06	1054813	811	blastx.2	sin3 associated polypeptide p18 [Homo	gb|AAC51322.1|	95%	317	799

						%		
HTEHP29	1055174	813	blastx.2	sapiens] protein related N-ternimus of tre oncogene [Homo sapiens]	dbj|BAA02807.1|	97%	7	585
HNOJJ32	1055248	814	blastx.2	PRAJA1 [Mus musculus]	gb|AAC00205.1|	73%	1084	1989
						45%	841	1620
						30%	100	948
						55%	1908	1985
HFPHF52	1055304	815	blastx.2	(AB006625) The human homolog of a mouse imprinted gene, Peg3. [Homo sapiens]	dbj|BAA22956.1|	98%	2	1348
						90%	1290	1682
						31%	251	979
						27%	62	1276
						30%	197	895
						24%	11	1333
						27%	44	1324
						26%	62	1273
						30%	146	895
						26%	5	856
						32%	605	1003
						24%	278	1147
						20%	35	979
						34%	221	484
						55%	1308	1445
						26%	1290	1676
						28%	1437	1676
						28%	596	829
						25%	1287	1769

Clone			Description	Accession	%		
HBNMF62	1055381	blastx.2	(AK000538) unnamed protein product [Homo sapiens]	dbj|BAA91239.1|	26% 32% 27% 36% 36% 39% 34% 28%	1308 1305 1398 905 1425 1596 1608 1344	1676 1499 1676 979 1499 1679 1676 1502
HTPHO72	1055426	blastx.2	EF-hand protein [Homo sapiens]	emb|CAA55343.1|	100% 43%	314 752	625 859
HOPKL18	1055439	blastx.2	stromelysin-3 precursor [Homo sapiens]	emb|CAA40918.1|	100%	98	1048
HTXKD84	1055467	blastx.2	Hlark [Homo sapiens]	gb|AAC51293.1|	100% 97% 58% 55%	2 111 571 839	1438 581 1191 1006
HTXRR82	1055480	blastx.2	myosin IC [Dictyostelium discoideum]	gb|AAC37427.1|	42% 32%	522 1433	1310 1504
HAIBU62	1055582	blastx.2	(AL133070) hypothetical protein [Homo sapiens]	emb|CAB61393.1|	99%	154	1518
HDTAY29	1055632	blastx.2	(AJ250865) TESS 2 [Homo sapiens]	emb|CAB65119.1|	99%	65	625
HCOQD79	1055767	blastx.2	(AF118394) putative	gb|AAD45242.1|AF1	98%	-201	689

1580

HAMHN1 2	1055899	825	blastx.2	nucleotide binding protein [Homo sapiens]	18394_1	100%	76	210
				Similarity to EGF domain; cDNA EST EMBL:T02406 comes from this gene [Caenorhabditis elegans]	emb|CAA94773.1|	28% 36%	53 263	559 562
HODIY67	1056000	826	blastx.2	(AF167160) protein inhibitor of activated STAT-1 [Homo sapiens]	gb|AAD49722.1|AF1 67160_1	99%	8	1957
HNTRS57	1056097	827	blastx.2	similar to ankyrin motifs; cDNA EST CEMSH89F comes from this 1 1 cDNA EST EMBL:D33056 comes from this gene; cDNA EST E	emb|CAA99881.1|	45%	2	853
HUKFL74	1056102	828	blastx.2	fsh-like protein [Mus musculus]	emb|CAA66186.1|	98%	1	168
HTEBF05	1056104	829	blastx.2	Wnt7a protein [Homo sapiens]	gb|AAC51319.1|	100%	9	344
HOPKD19	1056275	830	blastx.2	B-cell receptor associated protein [Homo sapiens]	gb|AAB51324.1|	100%	188	1084
HLICR58	1056290	831	blastx.2	(AF181467) protein Z-dependent protease inhibitor precursor [Homo sapiens]	gb|AAD53962.1|AF1 81467_1	98%	3	932

						100%	7	111
HAJAH48	1056400	833	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	100%	7	111
HSKJC61	1056407	834	blastx.2	(AF095448) putative G protein-coupled receptor [Homo sapiens]	gb|AAC98506.1|	100%	366	1436
						33%	265	327
HEEBK29	1056454	835	blastx.2	(AF018081) type XVIII collagen [Homo sapiens]	gb|AAC39658.1|	95%	1036	3060
						42%	1036	2118
						43%	1033	2133
						42%	1036	2166
						46%	1264	2166
						44%	1429	2118
						45%	1486	2118
						44%	1036	1632
						38%	1594	2118
						36%	1327	2109
						26%	1032	2117
						38%	743	940
						35%	743	934
						34%	668	931
						37%	3777	4139
						31%	1015	1251
						25%	3672	4190
						36%	3572	3694
						44%	658	771
						44%	728	841
						29%	1432	1587
						29%	2846	3154
						32%	565	771
						40%	4021	4119

784	677	38%
901	749	37%
910	707	27%
2905	2753	35%
3607	3524	32%
3161	3120	50%
3161	3087	40%
3971	3789	27%
3161	3108	50%
3731	3579	33%
3164	3087	40%
1140	2129	40%
1104	2108	37%
1056	2129	35%
1140	2039	38%
1053	2129	37%
1140	2015	37%
1140	2105	39%
1056	2129	35%
1164	2108	32%
1050	1910	35%
1230	2111	38%
1368	2108	37%
1566	2111	38%
1566	2111	37%
1692	2039	43%
1800	2105	43%
1632	2108	38%
1859	2707	30%
1608	2108	37%

1863	2117	43%
2204	2680	30%
1046	1468	32%
2207	2707	32%
4695	4790	45%
2791	2997	28%
3534	3599	52%
2077	2394	32%
3555	3629	48%
3983	4135	37%
1987	2394	27%
2083	2457	29%
3489	3692	29%
1934	2020	51%
3788	3997	32%
2797	3015	33%
3677	3877	36%
3677	3862	32%
3083	3163	48%
2839	2988	28%
4643	4843	29%
2050	2394	33%
1055	1183	32%
676	894	30%
2706	2825	25%
80	178	33%
2785	2892	38%
2050	2157	36%
4090	4128	61%
4090	4131	50%

						47%	2801	2751
HCHMM19	1056617	836	blastx.2	Lutheran blood group glycoprotein [Homo sapiens]	emb|CAA58449.1|	99%	10	1182
HE8NG02	1056625	837	blastx.2	(AL035608) dJ479J7.1 (similar to CHONDROMODULIN-1) [Homo sapiens]	emb|CAB55680.1|	93%	271	1011
HWHKD2	1056654	838	blastx.2	(AF094760) RFXANK [Homo sapiens]	gb|AAC69883.1|	59%	56	715
HOCPJ87	1056666	839	blastx.2	protein-tyrosine-phosphatase (EC 3.1.3.48) 11A - human	pir|A60345|A60345	99%	34	1125
HAAAA59	1056671	840	blastx.2	(AF151793) ALG-2 interacting protein 1 [Homo sapiens]	gb|AAF08220.1|AF151793_1	99% 56%	162 6007	2765 6048
HOSBJ18	1056672	841	blastx.2	finger protein 1, placental - human	pir|A32891|A32891	99% 68% 65% 65% 62% 61% 56% 40% 61%	752 830 914 998 590 548 482 2203 2239	2026 2095 2191 2221 1858 1774 1606 2322 2277
HUSGX12	1056736	842	blastx.2	GATA-6 [Homo sapiens]	dbj|BAA22621.1|	100%	2	838
HPDRG02	1056764	843	blastx.2	protein disulfide isomerase-related protein [Homo sapiens]	gb|AAA58460.1|	99% 42% 41%	26 26 1031	1405 523 1366

1585

							40%	1055	1327
HKZBB48	1056767	844	blastx.2	(AB022663) HFB30 [Homo sapiens]	dbj|BAA78677.1|	100%	239	1660
HHAWB19	1056774	845	blastx.2	(AF140242) encephalopsin [Homo sapiens]	gb|AAD32671.1|AF1 40242_1	98%	111	1316
HHATP38	1056786	846	blastx.2	VEGF related factor isoform VRF167 precursor [Homo sapiens]	gb|AAA91463.1|	100%	87	650
HVVBE07	1056801	847	blastx.2	(AF003944) ovalbumin upstream promoter beta nuclear receptor rCOUPb [Rattus norvegicus]	gb|AAB61297.1|	97% / 32%	702 / 185	983 / 328
HKAHB85	1056804	848	blastx.2	ear-2 gene product [Homo sapiens]	emb|CAA31282.1|	98%	4	831
HUSXA15	1056810	849	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj|BAA85438.1|	75% / 62%	300 / 295	205 / 167
HNOCH54	1056839	850	blastx.2	Protein sequence and annotation available soon via Swiss-Prot; 1 [Homo sapiens]	emb|CAA62188.1|	30% / 26% / 26% / 23% / 24% / 24% / 24% / 26%	727 / 556 / 727 / 703 / 703 / 706 / 892 / 703	1833 / 1875 / 1779 / 1809 / 1782 / 1812 / 1827 / 1812

1586

1782	727	24%
1833	724	21%
1827	733	24%
1827	883	25%
1824	856	26%
1236	28	22%
1833	883	23%
1836	865	21%
1827	856	22%
1833	988	23%
1836	730	22%
852	4	24%
876	1	25%
1782	715	22%
408	7	32%
690	145	31%
876	31	24%
1830	976	23%
456	1	28%
852	31	25%
885	16	22%
1359	382	23%
1527	745	23%
843	22	20%
906	1	26%
408	7	28%
411	1	26%
1296	424	24%
411	10	30%
1251	724	23%

690	259	25%
411	22	31%
1293	430	25%
681	427	34%
1635	1054	21%
501	250	35%
1251	427	24%
1311	430	24%
369	1	30%
612	7	25%
1383	427	23%
678	352	28%
1782	730	23%
501	250	31%
684	424	34%
681	427	35%
1743	1108	24%
681	415	32%
1356	430	26%
675	313	26%
681	427	29%
690	322	27%
675	322	27%
690	430	30%
693	343	30%
1830	1648	36%
684	430	33%
675	412	31%
1383	430	22%
1929	1369	22%

684	406	31%
282	1	29%
675	343	27%
420	31	29%
1401	430	22%
681	430	32%
675	337	27%
411	184	27%
1635	1012	23%
843	406	28%
753	337	26%
1896	1627	27%
1521	1120	23%
1401	997	24%
576	430	34%
675	421	30%
408	10	27%
1785	1357	24%
684	430	31%
681	358	29%
765	376	24%
1803	1618	25%
681	427	29%
681	352	28%
1308	427	25%
678	424	32%
690	349	25%
501	259	29%
1743	1108	22%
1359	364	21%

1554	1273	25%
768	424	30%
720	412	28%
1383	961	25%
693	427	30%
1308	430	22%
1311	409	22%
1236	634	25%
1383	430	21%
1458	1123	21%
576	427	31%
690	430	31%
1818	1648	31%
1698	1267	25%
678	427	27%
681	421	28%
654	418	26%
1827	1651	28%
1827	1648	30%
1401	1072	22%
1869	1288	24%
573	388	29%
771	424	27%
1077	499	25%
1953	1621	26%
1635	1375	22%
1527	1279	30%
681	427	30%
681	430	32%
699	430	25%

1812	1660	32%
1830	1648	25%
1830.	1648	34%
1782	1333	24%
684	415	23%
1827	1648	26%
1644	1273	26%
1254	1006	29%
1527	1009	21%
654	418	29%
1533	1282	22%
1827	1582	23%
678	430	32%
432	148	28%
1488	1117	18%
1812	1648	27%
1509	1123	21%
420	16	31%
1827	1618	29%
1527	1123	25%
1347	1012	27%
1644	1390	20%
681	382	25%
1782	1369	27%
675	352	22%
1311	427	23%
678	427	25%
654	430	32%
684	427	25%
693	430	29%

684	424	27%
1929	1648	23%
1929	1648	28%
1383	1018	28%
1827	1651	25%
1830	1648	22%
1587	1384	26%
1827	1648	26%
1830	1648	24%
1452	1012	21%
621	430	32%
1812	1669	27%
1635	1393	23%
1806	1648	30%
1242	1123	32%
1929	1369	23%
1827	1648	25%
567	427	34%
1782	1648	40%
1239	1057	28%
1383	961	24%
1554	1357	26%
1800	1648	25%
1518	976	22%
1509	1222	28%
1023	724	26%
300	4	22%
1560	1390	28%
1554	1123	18%
1818	1648	22%

1245	907	20%
1584	1288	25%
1905	1075	20%
1383	1120	22%
1806	1207	21%
675	409	26%
411	28	25%
1509	1285	22%
435	16	26%
1917	1648	25%
1812	1648	23%
1567	1463	37%
1530	1072	18%
1929	1369	21%
1782	1648	24%
1782	1642	25%
1401	1012	22%
454	338	27%
1839	1651	22%
1509	1174	23%
1734	1357	26%
1626	1369	23%
1635	1375	21%
1788	754	16%
631	440	26%
798	427	24%
165	1	25%
429	124	25%
1800	1651	23%
1830	1648	22%

2095	2018	42%
144	1	25%
1314	1195	34%
1362	979	22%
144	67	34%
1368	1123	30%
1827	1648	20%
1091	897	28%
1458	1318	25%
1929	1468	22%
1827	1648	20%
533	477	47%
2018	1980	53%
1236	1120	23%
1175	993	33%
1827	1651	22%
1827	1648	22%
1509	1375	24%
2092	1910	24%
1837	1733	25%
1692	1648	53%
528	397	29%
1731	1369	20%
2060	1878	27%
1440	1336	31%
1554	1327	25%
1467	1120	23%
1830	1648	21%
2078	2031	43%
1321	1256	40%

				Description	Accession	%		
HOCPP16	1056856	851	blastx.2	insulin-like growth factor binding protein 2 [Homo sapiens]	gb|AAA03246.1|	50%	814	849
						45%	1863	1928
						27%	127	393
						25%	1120	1236
HNOAH83	1056862	852	blastx.2	platelet-endothelial tetraspan antigen 3 [Homo sapiens]	gb|AAA87064.1|	100%	36	650
						100%	90	848
HE2OU10	1056875	853	blastx.2	OTK27 [Homo sapiens]	dbj|BAA23363.1|	100%	97	480
HODGM4 6	1056927	854	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	68%	5	229
HODFR44	1056990	855	blastx.2	(AL137516) hypothetical protein [Homo sapiens]	emb|CAB70782.1|	99%	11	469
						42%	14	343
						47%	20	319
						50%	71	313
						48%	14	274
						34%	14	403
						38%	14	313
						38%	38	313
HCHND12	1057009	856	blastx.2	(AF121963) receptor tyrosine kinase precursor [Gallus gallus]	gb|AAD31764.1|AF1 21963_1	77%	136	321
						77%	299	403
						37%	6	155
						42%	48	131
						32%	45	155
						42%	63	176
						38%	54	155

HBHAC29	1057157	blastx.2	myelin-associated glycoprotein precursor [Homo sapiens]	gb|AAA59545.1|	98% 90% 39% 100%	2 427 20 786	424 759 400 815
HTPFW87	1057170	blastx.2	carboxyl ester lipase [Homo sapiens]	gb|AAA51973.1|	98% 34% 39% 35% 37% 36% 36% 34% 34% 34%	5 1620 2154 2160 2136 2160 2160 2109 2010 1977	2206 2084 1687 1690 1687 1705 1768 1681 1687 1687
HISAF60	1057212	blastx.2	junctional adhesion molecule [Mus musculus]	gb|AAC32982.1|	38%	116	988
HRABO80	1057219	blastx.2	(AL050143) hypothetical protein [Homo sapiens]	emb|CAB43289.1|	100%	1590	1937
HADDF30	1057260	blastx.2	transcription regulatory protein Evi-1, short form - human	pir|B60191|B60191	98% 22%	1 7	1155 858
HDAAS58	1057272	blastx.2	(AC005003) similar to zinc finger protein MAZ [Homo sapiens]; similar to AAB04121.1 (PID:g995935)	gb|AAF01349.1|ACO05003_1	77%	263	676
HSDZG15	1057307	blastx.2	Homology with Squid retinal-binding protein	emb|CAA91418.1|	68% 47%	3 1212	713 1274

			(PIR Acc. No. 1 1				
HPDVY52	1057393	blastx.2	laminin alpha 5 chain [Mus musculus]	gb|AAC53430.1|	64% 47%	6 1165	1196 1380
HHESW02	1057478	blastx.2	(AF062075) leupaxin [Homo sapiens]	gb|AAC16014.1|	100% 34%	95 896	1252 1258
HVVBW84	1057561	blastx.2	(AB003184) ISLR [Homo sapiens]	dbj|BAA22848.1|	100%	342	1625
HSLJC80	1057797	blastx.2	prolargin [Homo sapiens]	gb|AAC18782.1|	32% 32% 28% 28% 29% 34%	353 899 686 1109 1663 262	1228 1573 1420 1657 1980 357
HEOAD12	1057842	blastx.2	(AF116865) hedgehog-interacting protein [Mus musculus]	gb|AAD31172.1|AF116865_1	70%	533	1069
HVVBT41	1057880	blastx.2	(AL035587) dJ475N16.1 (CTG4A) [Homo sapiens]	emb|CAB75301.1|	100%	439	1272
HAZAE42	1057915	blastx.2	cellular retinol binding protein [Homo sapiens]	emb|CAA30318.1|	100%	255	659
HPRBN60	1057948	blastx.2	(AF002282) alpha-actinin-2 associated LIM protein [Homo sapiens]	gb|AAC16672.1|	99%	72	1019
HOVCZ68	1057958	blastx.2	follistatin 1 precursor - human	pir|A32141|A32141	99%	1	987
H6EDF71	1057979	blastx.2	antigenic surface determinant OA3	emb|CAA49196.1|	99%	92	1021

HCOOF60	1058001	blastx.2	ubiquitin carrier protein E2 - human [Homo sapiens]	pir|B42856|B42856	99%	133	855
HVVBH81	1058059	blastx.2	hnRNP U protein [Homo sapiens]	emb|CAA46472.1|	99%	227	2644
HSPTJ51	1058172	blastx.2	SWI/SNF complex 155 KDa subunit [Homo sapiens]	gb|AAC50693.1|	95% 90% 29%	51 51 45	1004 1043 1055
HOPKC80	1058174	blastx.2	(AJ011497) Claudin-7 [Homo sapiens]	emb|CAA09626.1|	99%	348	980
HOCPT58	1058250	blastx.2	(AF037261) SH3-containing adaptor molecule-1 [Homo sapiens]	gb|AAC09244.1|	100% 94%	121 19	765 126
HPCTP25	1058287	blastx.2	gamma-aminobutyraldehyde dehydrogenase [Homo sapiens]	gb|AAB18827.1|	98%	72	1553
HODKM52	1058305	blastx.2	(AB008789) grb7 protein [Homo sapiens]	dbj|BAA29059.1|	98%	58	999
HCONB89	1058316	blastx.2	acid ceramidase [Homo sapiens]	gb|AAC50907.1|	99%	118	1302
HBPND88	1058432	blastx.2	carboxyl terminal LIM domain protein [Homo sapiens]	gb|AAC05580.1|	99%	142	1128
H6EEO05	1058438	blastx.2	(AL117423) hypothetical protein [Homo sapiens]	emb|CAB55915.1|	99%	100	1527
HFIVR61	1058451	blastx.2	interferon beta 2a	emb|CAA00839.1|	99%	214	777

Clone	ID	Seq	Method	Description	Accession	%		
HVVBX28	1058458	887	blastx.2	SH3 domain-containing protein SH3P17 [Homo sapiens]	gb|AAC50592.1|	96% 49% 36%	53 308 104	493 466 301
HVVBI38	1058475	888	blastx.2	factor H [Homo sapiens]	emb|CAA68704.1|	99% 25% 26% 25% 28% 27%	294 336 294 501 1083 1185	2291 2264 2291 2219 2288 2099
HUKEJ46	1058539	889	blastx.2	(AF081507) signaling molecule LEFTY-B [Homo sapiens]	gb|AAC33967.1|	98% 99%	479 70	1165 489
HDTFT47	1058588	890	blastx.2	lymphocyte antigen [Homo sapiens]	gb|AAA36236.1|	98% 91%	2 258	268 398
HSSFS71	1058596	891	blastx.2	ESP1/CRP2 [Homo sapiens]	dbj|BAA07703.1|	95% 77% 34%	29 41 219	460 265 512
HSDJH63	1058612	892	blastx.2	(AB045180) toll-like receptor 9 [Homo sapiens]	dbj|BAB19259.1|	92% 100% 52% 45% 58%	192 107 128 122 131	1358 190 184 181 181
HAHGD24	1058622	893	blastx.2	laminin alpha 5 chain [Mus musculus]	gb|AAC53430.1|	61%	80	1024
HTAEV85	1058723	894	blastx.2	(AJ005566) SPR2H protein [Mus musculus]	emb|CAA06595.1|	43% 64% 50% 35%	408 2500 1784 544	256 2459 1719 485
HPMME44	1058928	895	blastx.2	HCMVUL126 [human	emb|CAA35328.1|	96%	78	329

HSPSG28	1058977	897	blastx.2	herpesvirus 5] 26S protease subunit [Sus scrofa]	emb|CAA61863.1|	99% 88%	483 56	1679 82
HTGFW12	1059006	898	blastx.2	homolog of yeast mutL gene [Homo sapiens]	gb|AAA63923.1|	98% 94% 68%	83 1522 1431	1438 2670 1667
HOFMT75	1059050	899	blastx.2	cathepsin D [Homo sapiens]	gb|AAA51922.1|	87% 80%	7 414	456 743
HARNB17	1059085	900	blastx.2	HCMVUL126 [human herpesvirus 5	emb|CAA35328.1|	98%	241	492
HPDRG65	1059102	901	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	69% 69% 83%	434 253 288	273 128 253
HAOSG15	1059145	902	blastx.2	(AF026291) chaperonin containing t-complex polypeptide 1, delta subunit; CCT-delta [Homo sapiens]	gb|AAC96010.1|	100%	160	1776
HHEND31	1059180	903	blastx.2	(AF117330) unknown [Rattus norvegicus]	gb|AAD26207.1|AF1 17330 1	73%	175	1827
HBMSN62	1059186	904	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	86%	1102	1251
HOVCJ46	1059241	905	blastx.2	(AF037272) WAP four-disulfide core	gb|AAC40055.1|	87% 70%	41 175	214 336

			domain protein [Rattus norvegicus]				
HWLEP14	906	blastx.2	(AF117646) long CBL-3 protein [Homo sapiens]	gb|AAD34341.1|AF1 17646_1	99%	92	1348
HDABR73	908	blastx.2	bikunin [Homo sapiens]	gb|AAC02781.1|	100%	436	1191
HOGAJ24	909	blastx.2	Similar to Human tesican (S33293) [Homo sapiens]	dbj|BAA13404.1|	100%	427	1698
HTJMV05	910	blastx.2	protein tyrosine phosphatase [Homo sapiens]	gb|AAA50779.1|	100%	5	685
HOOIL70	911	blastx.2	hematopoietic cell phophatase [Homo sapiens]	gb|AAA35963.1|	100% 37% 32% 30%	212 188 2209 2219	1996 508 2310 2296
HUNAE87	912	blastx.2	(AF062317) p120 catenin isoform 1B [Homo sapiens]	gb|AAC39802.1|	99%	158	955
HTPHO01	913	blastx.2	(AF169284) LIM and cysteine-rich domains protein 1 [Homo]	gb|AAF34411.1|	97%	125	1048
HDPWK69	914	blastx.2	(AL031629) similar to RNA recognition motif. (aka RRM, RBD, or 1 1	emb|CAA20980.2|	52%	275	496

HPCOK03	1059849	915	blastx.2	(AF008551) aurora-related kinase 1 [Homo sapiens]	gb|AAC12708.1|	99%	59	1267
HOOJC15	1059967	917	blastx.2	(AL117639) hypothetical protein [Homo sapiens]	emb|CAB56027.1|	98%	575	1216
HODFG47	1059969	918	blastx.2	(AF132856) suppressor of G2 allele of skp1 homolog [Homo sapiens]	gb|AAD30062.1|	100%	215	1213
HBIPC05	1060137	919	blastx.2	(AF078798) extracellular signal-regulated kinase 7; ERK7 [Rattus norvegicus]	gb|AAD12719.1|	62%	23	832
HOPJJ32	1060193	920	blastx.2	replication protein A 14kDa subunit [Homo sapiens]	gb|AAA58350.1|	100%	447	635
HNOBN20	1060382	921	blastx.2	unknown protein [Homo sapiens]	gb|AAA88036.1|	43% 47%	1362 1487	1150 1380
HOCPX74	1060391	922	blastx.2	(AL137714) hypothetical protein [Homo sapiens]	emb|CAB70887.1|	91%	18	656
HTEPP27	1060415	923	blastx.2	PF20 [Chlamydomonas reinhardtii]	gb|AAB41727.1|	39%	207	581
HLYAJ79	1060495	924	blastx.2	ATPase subunit 6 [Homo sapiens]	dbj|BAA07295.1|	79%	197	808
HCOOQ11	1060656	925	blastx.2	sialidase [Homo sapiens]	emb|CAA55356.1|	70% 100%	1 189	189 308

HWMGI51	1060711	blastx.2	926	hypothetical protein [Synechocystis sp.]	dbj|BAA10294.1|	41%	16	615
HDPJG33	1060780	blastx.2	927	GTP binding protein [Mus musculus]	emb|CAA36803.1|	78% 68% 37%	543 439 933	863 699 1061
HLYAE20	1060967	blastx.2	928	hypothetical protein 2 (rRNA external transcribed spacer) - 1	pir|S12206|S12206	67%	1002	1259
HKZAR86	1060972	blastx.2	929	ERF-2 [Homo sapiens]	emb|CAA55592.1|	99%	322	1302
HAOTX62	1061036	blastx.2	930	SPIN protein [Homo sapiens]	emb|CAA75163.1|	100%	77	298
HOCQG58	1061180	blastx.2	931	26S PROTEASOME REGULATORY SUBUNIT S2 (P97) (TUMOR 11	sp|Q13200|PSD2_HUMAN	100%	63	2786
HOFNH33	1061185	blastx.2	932	MRAS2 gene product [Mucor racemosus]	gb|AAA83994.1|	31%	260	823
HAJAQ63	1061238	blastx.2	933	matrin 3 [Rattus norvegicus]	gb|AAB63955.1|	90% 94% 54% 98% 24% 31% 35% 35% 40%	1038 293 2361 3308 2634 2646 1755 3362 3837	2570 1105 2810 3478 2813 2759 1847 3454 3896
HVVBK70	1061258	blastx.2	934	(AJ000414) Cdc42-interacting protein 4 [Homo sapiens]	emb|CAA04062.1|	92% 100% 28%	653 31 627	1276 468 1055
HVVBA82	1061332	blastx.2	935	(AL022313)	emb|CAA18439.1|	100%	3	500

Code		SEQ	Method	Description	Accession	Identity		
HWLLG38	1061388	936	blastx.2	dJ1119A7.1 (mitochondrial thioredoxin) [Homo sapiens] neurocalcin [Bos taurus]	dbj|BAA01706.1|	100%	114	692
HTPCH84	1061466	937	blastx.2	(AF104419) decoy receptor 3 [Homo sapiens]	gb|AAD03056.1|	99% 100%	103 938	945 1000
HLGDA34	1061543	939	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj|BAA91205.1|	71% 73%	3 1766	254 1641
HAICB08	1061629	940	blastx.2	rhoHP1 [Homo sapiens]	dbj|BAA19652.1|	100%	3	326
HVVAW6 0	1061694	941	blastx.2	(AF151882) CGI-124 protein [Homo sapiens]	gb|AAD34119.1|AF151882_1	100%	244	741
HPDVB50	1061708	942	blastx.2	(AJ002030) progesterone binding protein [Homo sapiens]	emb|CAA05152.1|	100%	33	206
HAZAY40	1061765	943	blastx.2	tight junction (zonula occludens) protein ZO-1 [Homo sapiens]	gb|AAA02891.1|	100%	3	1631
HACMZ51	1061766	944	blastx.2	contains 10 ankyrin-like repeats; similar to human ankyrin, 1 bursaria Chlorella virus 1]	gb|AAC96986.1|	33% 28% 32% 30%	118 73 100 88	957 726 657 561
HUXAL63	1061790	945	blastx.2	100 kDa protein [Rattus norvegicus]	emb|CAA45756.1|	98%	2	1300

HLCLX57	1061886	946	blastx.2	latent transforming growth factor-beta-binding protein-2, 1 1	gb|AAB37459.1|			
						99%	3	953
						37%	447	941
						32%	27	398
						34%	21	398
						45%	696	941
						40%	693	914
						41%	696	941
						42%	681	929
						38%	666	941
						36%	693	914
						32%	666	989
						34%	684	929
						34%	657	929
						34%	666	941
						43%	12	167
						35%	696	929
						45%	6	149
						47%	15	149
						31%	9	377
						46%	3	155
						35%	678	914
						40%	3	149
						29%	9	365
						35%	3	155
						38%	3	143
						40%	246	371
						41%	837	944
						34%	3	143
						29%	15	188
						28%	99	215

					35% 22% 57%	118 280 427	252 483 468
HMALF63	1061935	blastx.2	factor activating exoenzyme S [Bos taurus]	gb|AAA30514.1|	99%	519	1130
HACMR36	1062057	blastx.2	(AK000963) unnamed protein product [Homo sapiens]	dbj|BAA91446.1|	86% 99% 27% 34% 33% 27% 50%	181 29 1141 1460 1710 1883 1506	1290 391 1323 1528 1805 2170 1553
HAOSM08	1062079	blastx.2	(AF059617) serum-inducible kinase [Homo sapiens]	gb|AAC14573.1|	99%	284	2338
HTEFM89	1062084	blastx.2	(AF162680) STRIN protein [Homo sapiens]	gb|AAD46623.2|AF1 62680_1	99%	500	1234
HCHAK72	1062123	blastx.2	(AF113596) mosaic serine protease epitheliasin [Mus musculus]	gb|AAF21308.1|	47%	95	1165
HPAME12	1062139	blastx.2	retinoic acid- and interferon-inducible 58K protein RI58 [Homo sapiens]	gb|AAA84934.1|	100%	209	1654
HCE4F10	1062309	blastx.2	(AL050060) hypothetical protein [Homo sapiens]	emb|CAB43253.1|	97%	798	1535

HBCBE63	1062328	blastx.2	(AF007170) unknown [Homo sapiens]	gb|AAC39582.1|	100% 69% 87% 57%	191 87 25 1	790 251 96 63
HSSJO19	1062346	blastx.2	endonuclease G [Bos taurus]	emb|CAA51320.1|	97% 24%	361 1093	248 887
HE8NQ23	1062369	blastx.2	(AF062006) orphan G protein-coupled receptor HG38 [Homo sapiens]	gb|AAC28019.1|	99% 100% 87%	574 416 171	1419 571 263
HTELJ95	1062431	blastx.2	(AB006679) ATP binding protein [Homo sapiens]	dbj|BAA21881.1|	99%	272	949
HTPCP50	1062435	blastx.2	(AF111069) latrophilin 2 splice variant baaae [Bos taurus]	gb|AAD05305.1|	38% 47%	417 1997	2129 2044
HFKIT82	1062544	blastx.2	(AF152495) protocadherin beta 2 [Homo sapiens]	gb|AAD43756.1|AF152495_1	98% 30% 26%	2 20 26	1663 1297 1267
HE2LW42	1062574	blastx.2	(AF090934) PRO0518 [Homo sapiens]	gb|AAF24048.1|AF090934_1	100%	1267	1079
HOGCE44	1062586	blastx.2	protein tyrosine phosphatase (EC 3.1.3.48) [Homo sapiens]	gb|AAA36528.1|	99%	156	2561
HOVJJ72	1062626	blastx.2	latent TGF-beta binding protein-4 [Homo sapiens]	emb|CAA73944.1|	85% 91% 85%	547 203 1	1782 559 204

1728	562	30%
363	1	45%
1296	16	29%
885	16	30%
1869	1537	33%
1920	1132	33%
276	4	41%
1926	1465	32%
198	1	48%
1761	1507	38%
1734	1435	35%
1761	1474	36%
1881	1366	29%
198	4	47%
1116	553	29%
1743	1453	38%
198	34	36%
153	16	34%
583	212	23%
268	209	60%
1164	562	25%
268	215	66%
298	215	53%
268	206	42%
556	410	32%
280	215	52%
268	215	55%
328	212	38%
301	212	40%
493	245	29%

						37%	215	346
						37%	212	307
						42%	209	271
						29%	4	210
						55%	215	265
						30%	212	310
						29%	841	921
						32%	1766	1930
						32%	1667	1861
						58%	230	265
						29%	215	460
						56%	1764	1838
						58%	1792	1842
						63%	1859	1891
						40%	1391	1450
						37%	12	95
						37%	254	406
						66%	549	584
						87%	838	569
						34%	1633	1421
						69%	2007	1969
						30%	1621	1421
						38%	1024	938
						30%	1552	1352
						63%	1525	1493
						70%	1295	1266
HODBT14	1062628	965	blastx.2	guanine nucleotide exchange factor [Homo sapiens]	gb|AAA35914.1|	100%	15	320
HBOEB83	1062629	966	blastx.2	thrombospondin-4	emb|CAA79635.1|	95%	4	1392

					%		
HODCT96	1062631	blastx.2	[Homo sapiens] repressor transcriptional factor [Homo sapiens]	gb|AAA79179.1|	74%	2	247
					74%	2	247
					73%	2	247
					56%	2	337
					40%	2	514
					69%	2	247
					69%	2	247
					41%	2	490
					78%	250	468
					67%	2	247
					66%	2	259
					71%	250	468
					73%	250	462
					77%	259	468
					71%	250	468
					75%	250	456
					70%	250	471
					69%	250	468
					71%	250	468
					64%	250	468
					63%	250	468
					72%	250	423
					38%	2	313
					49%	253	459
HTXJE60	1062655	blastx.2	(AK000642) unnamed protein product [Homo sapiens]	dbj|BAA91301.1|	50%	171	1112
HUSIQ62	1062679	blastx.2	high mobility group 2 protein [Homo sapiens]	gb|AAA58659.1|	100%	188	814
					31%	143	472

HKBAK29	1062718	971	blastx.2	(AF161525) HSPC177 [Homo sapiens]	gb|AAF29140.1|AF1 61525_1	100%	975	1562
						93%	42	140
HPMCX26	1062743	972	blastx.2	LIMK-2 [Homo sapiens]	dbj|BAA08312.1|	97%	365	649
HFKHF51	1062785	973	blastx.2	(AF177203) cerebral cell adhesion molecule [Homo sapiens]	gb|AAD51367.1|AF1 77203_1	99%	360	1910
HUCPE28	1062795	974	blastx.2	extensin [Volvox carteri]	emb|CAA46283.1|	36%	728	1063
						36%	728	958
						36%	735	1055
						38%	734	949
						27%	119	460
HPWAH30	1062840	975	blastx.2	zinc finger protein [Homo sapiens]	gb|AAA59469.1|	98%	1	705
						77%	1	705
						76%	1	705
						76%	1	705
						81%	1	666
						75%	1	702
						77%	1	696
						75%	1	705
						74%	1	705
						76%	1	705
						74%	10	705
						75%	1	705
						74%		705

1611

705	74%	1
705	72%	1
705	73%	1
705	72%	1
705	71%	1
705	72%	1
705	71%	1
705	71%	1
705	71%	1
705	71%	1
705	70%	1
705	71%	1
705	71%	1
705	71%	1
705	67%	1
705	63%	1
705	59%	163
815	52%	702
815	51%	723
815	51%	723
815	42%	702
815	48%	723
815	42%	702
815	45%	723
815	39%	702
815	45%	723
815	39%	702
815	39%	702
815	46%	726
815	45%	723

1612

						36%	702	815
						42%	723	806
						36%	702	815
						41%	723	815
						41%	723	815
						41%	723	815
						42%	726	809
						43%	726	815
						43%	726	815
						43%	726	815
H6EDQ51	H6EDQ51R	976	blastx.2	cytochrome b [Homo sapiens]	gb|AAA19775.1|	95%	10	210
HA5AU29	HA5AU29R	977	blastx.2	amyloid-beta protein [Homo sapiens]	gb|AAB59501.1|	85%	2	190
HACBX26	HACBX26R	978	blastx.2	NADH dehydrogenase subunit 1 [Homo sapiens]	dbj|BAA07290.1|	89%	2	259
HACMH72	HACMH72R	982	blastx.2	TraC protein (gtg start codon) [Plasmid F]	gb|AAA24905.1|	93%	35	478
HACMS55	HACMS55R	985	blastx.2	(AF013215) ribosomal protein S2 [Bos taurus]	gb|AAB65437.1|	100%	3	116
HACMX77	HACMX77R	986	blastx.2	protein kinase C inhibitor-I [Homo sapiens]	gb|AAA82926.1|	100%	42	419
HACMZ45	HACMZ45R	987	blastx.2	Keratin 8 [Homo sapiens]	emb|CAA52882.1|	100%	3	245

HACND54	HACND54R	988	blastx.2	(AC003956) acetolactate synthase [Homo sapiens]	gb|AAB94632.1|	67% 78%	2 267	466 404
HACNF21	HACNF21R	991	blastx.2	40-kDa keratin protein [Homo sapiens]	gb|AAA36044.1|	86%	3	608
HACNF41	HACNF41R	992	blastx.2	cytokeratin 8 (279 AA) [Homo sapiens]	emb|CAA31376.1|	100%	2	91
HACNI47	HACNI47R	993	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	95%	96	500
HADET44	HADET44R	996	blastx.2	URF 1 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24026.1|	95% 92%	62 481	481 522
HAHHD12	HAHHD12R	998	blastx.2	(AF016252) Spinophilin [Rattus norvegicus]	gb|AAB72005.1|	96%	1	96
HALSG11	HALSG11R	999	blastx.2	(AC004544) cytochrome C oxidase; match to P14406 (PID:g117121) [Homo sapiens]	gb|AAC12952.1|	74% 74%	116 54	376 134
HAOSB87	HAOSB87R	1002	blastx.2	delta- aminolevulinate synthase (housekeeping) [Homo sapiens]	emb|CAA39794.1|	73%	1	549
HAOSE70	HAOSE70R	1004	blastx.2	acidic ribosomal phosphoprotein (P1) [Homo sapiens]	gb|AAA36471.1|	88% 55%	166 273	267 359
HAOSF68	HAOSF68R	1005	blastx.2	laminin-binding protein [Homo sapiens]	gb|AAA36161.1|	90%	76	576

HAOSG95	HAOSG95R	1006	blastx.2	ribosomal protein S20 [Homo sapiens]	gb|AAA60286.1|	82%	111	452
HAOSI79	HAOSI79R	1007	blastx.2	ribosomal protein L7 [Homo sapiens]	gb|AAA03081.1|	95%	10	330
HAOSJ27	HAOSJ27R	1008	blastx.2	polyubiquitin - tobacco hornworm (fragments)	pir|JH0302|JH0302	100% 100% 75% 73% 49% 39% 72%	2 2 135 135 156 223 223	142 142 233 224 332 405 255
HAOSJ33	HAOSJ33R	1009	blastx.2	lactate dehydrogenase-A [Homo sapiens]	emb|CAA26879.1|	95%	3	353
HAOSK38	HAOSK38R	1011	blastx.2	Ku protein subunit [Homo sapiens]	gb|AAA36155.1|	100%	4	303
HAOSL36	HAOSL36R	1012	blastx.2	S-adenosylhomocysteine hydrolase [Homo sapiens]	gb|AAA51681.1|	94% 96% 71% 88%	30 224 336 1	200 379 494 27
HAOSL47	HAOSL47R	1013	blastx.2	(AF155581) proteasome subunit beta 7 [Danio rerio]	gb|AAD53521.1|AF1 55581_1	91% 93% 55% 80%	86 4 432 340	343 96 572 429
HAOTE06	HAOTE06R	1021	blastx.2	(AF132947) CGI-13 protein [Homo sapiens]	gb|AAD27722.1|AF1 32947 1	98%	2	451
HAOTF90	HAOTF90R	1023	blastx.2	carboxyl methyltransferase [Homo sapiens]	dbj|BAA02991.1|	94%	3	170
HAOTI07	HAOTI07R	1026	blastx.2	HL23 ribosomal protein [Homo sapiens]	emb|CAA39417.1|	96% 84%	36 398	365 454

							80%	361	405
HAOTT79	HAOTT79R	1027	blastx.2	CYTOSKELETON-ASSOCIATED PROTEIN CKAPI (TUBULIN FOLDING COFACTOR B).	sp|Q99426|CKAP_HUMAN		88% 53%	9 332	356 376
HAOTU79	HAOTU79R	1028	blastx.2	ME491 antigen precursor (AA -1 to 237) [Homo sapiens]	emb|CAA30792.1|		97%	57	452
HAOTW22	HAOTW22R	1029	blastx.2	KERATIN, TYPE II CYTOSKELETAL 8 (CYTOKERATIN 8) (K8) (CK 1	sp|P05787|K2C8_HUMAN		100%	1	201
HAPNK45	HAPNK45R	1032	blastx.2	cytochrome c oxidase subunit 1 [Homo sapiens]	dbj|BAA07292.1|		90% 79% 90% 100%	2 274 473 261	262 516 535 281
HAPPR43	HAPPR43R	1033	blastx.2	hypothetical 18K protein - goldfish mitochondrion	pir|JC1348|JC1348		42%	146	472
HAQML40	HAQML40R	1035	blastx.2	ribosomal protein L39 [Homo sapiens]	dbj|BAA11465.1|		98%	106	258
HAUAK54	HAUAK54R	1037	blastx.2	CAG-isl 7 [Homo sapiens]	gb|AAC16021.1|		62%	12	245
HAZAC68	HAZAC68R	1042	blastx.2	lumican [Homo sapiens]	gb|AAA91639.1|		97% 26% 36%	3 3 3	587 551 500
HAZAD13	HAZAD13R	1043	blastx.2	human elongation factor-1-delta [Homo sapiens]	emb|CAA79716.1|		74% 60%	53 250	478 555

HAZAE44	HAZAE44R	1045	blastx.2	fibronectin precursor [Homo sapiens]	emb|CAA26536.1|	98% 46% 40% 39% 36% 35% 33%	84 105 105 123 69 105 18	512 335 413 347 392 344 347
HAZAG23	HAZAG23R	1046	blastx.2	unnamed protein product [Homo sapiens]	emb|CAA62211.1|	96%	2	466
HAZAI89	HAZAI89R	1051	blastx.2	KERATIN, TYPE II CYTOSKELETAL 8 (CYTOKERATIN 8) (K8) (CK 1)	sp|P05787|K2C8_HUMAN	100%	72	260
HAZAJ72	HAZAJ72R	1052	blastx.2	protein arginine N-methyltransferase [Rattus norvegicus]	gb|AAC52622.1|	97% 58% 81% 34%	1 497 579 537	537 580 611 605
HAZAQ80	HAZAQ80R	1053	blastx.2	(AF064205) dynactin 1 p135 isoform [Homo sapiens]	gb|AAD55812.1|	100%	84	389
HAZBI39	HAZBI39R	1056	blastx.2	(AL031427) dJ167A19.3 (novel protein) [Homo sapiens]	emb|CAB46723.1|	100%	83	424
HAZBJ69	HAZBJ69R	1057	blastx.2	transmembrane protein	emb|CAA66947.1|	100%	3	323

				[Oryctolagus cuniculus]				
HBJHY72	HBJHY72RP00B	1063	blastx.2	(AL117434) hypothetical protein [Homo sapiens]	emb|CAB55922.1|	98%	1	297
HBXCG52	HBXCG52R	1065	blastx.2	(AK001079) unnamed protein product [Homo sapiens]	dbj|BAA91496.1|	89% 46%	371 457	427 606
HCACS53	HCACS53RP00A	1067	blastx.2	histone H3 [Spisula solidissima]	gb|AAA29965.1|	90% 100% 86%	313 116 506	507 244 574
HCHAJ85	HCHAJ85R	1068	blastx.2	hemolysin [Acanthamoeba polyphaga]	gb|AAA58585.1|	61%	206	57
HCHMM7 1	HCHMM71R	1069	blastx.2	(AC003040) unknown protein [Arabidopsis thaliana]	gb|AAC23757.1|	58% 44%	2 249	244 329
HCLBH21	HCLBH21R	1071	blastx.2	cytochrome c oxidase subunit 1 [Pan troglodytes]	dbj|BAA85270.1|	91% 88%	3 415	416 600
HCOMA72	HCOMA72R	1073	blastx.2	NuMA protein - human	pir|S33413|S33413	100%	115	273
HCOMB04	HCOMB04R	1074	blastx.2	prolylcarboxypeptidase [Homo sapiens]	gb|AAA99891.1|	98% 55%	77 702	718 782
HCOMD38	HCOMD38R	1075	blastx.2	phospholipid hydroperoxide glutathione peroxidase [Homo sapiens]	emb|CAA50793.1|	100%	39	275
HCOMD61	HCOMD61	1076	blastx.2	(AF047470) malate	gb|AAC03787.1|	87%	1	216

	R			dehydrogenase precursor [Homo sapiens]		75%	240	287
HCOMF52	HCOMF52R	1078	blastx.2	hypothetical protein 384D8_6 [Homo sapiens]	gb|AAB03345.1|	80%	14	655
HCOMG28	HCOMG28R	1079	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	71% 100%	100 54	522 98
HCOMG40	HCOMG40R	1080	blastx.2	ribosomal protein L15 [Rattus norvegicus]	emb|CAA55026.1|	76%	35	646
HCOMI30	HCOMI30R	1083	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	85%	315	491
HCOMI37	HCOMI37R	1084	blastx.2	similar to 40S ribosomal protein; cDNA EST CEMSA13F comes from 1 1 gene; cDNA EST EMBL:M79582 comes from this gene; cDN	emb|CAA86061.1|	59% 66% 64%	304 89 518	540 301 568
HCOML11	HCOML11R	1085	blastx.2	fused-ccdB [Escherichia coli]	emb|CAA71575.1|	90%	273	470
HCOMM5 5	HCOMM55R	1087	blastx.2	The polymorphysm (RFLP) of this gene is associated with 1 1	dbj|BAA03853.1|	100%	298	176
HCOMO58	HCOMO58R	1088	blastx.2	(AF042857) lung cancer antigen NY-LU-12 variant A [Homo	gb|AAC05826.1|	98%	4	282

						%		
HCOMW52	HCOMW52RP00B	1089	blastx.2	(AB032025) ubiquitin [Canis familiaris] sapiens]	dbj|BAA83996.1|	99%	60	443
HCOMX77	HCOMX77R	1090	blastx.2	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A11 (HNRNP CORE PROTEIN A1).	sp|P09651|ROA1_HUMAN	65%	133	315
						96%	5	82
						100%	81	122
						57%	5	82
						53%	8	76
						48%	5	82
						34%	142	291
						57%	11	82
						62%	81	128
						44%	5	82
						45%	11	79
						75%	81	116
						50%	84	119
HCONC18	HCONC18RP00B	1091	blastx.2	cathepsin D [Homo sapiens]	gb|AAA51922.1|	87%	3	188
						91%	190	333
						83%	335	424
						71%	426	467
HCONK56	HCONK56R	1093	blastx.2	ribosomal protein L18 [Homo sapiens]	gb|AAA16329.1|	100%	104	616
						57%	567	665
HCONL49	HCONL49R	1095	blastx.2	ribosomal protein S13 [Homo sapiens]	dbj|BAA13528.1|	98%	3	221
HCONO17	HCONO17R	1099	blastx.2	(AC004240) match to Z43555 (NID:g572788) [Homo sapiens]	gb|AAC04502.1|	81%	4	69
						71%	65	148
HCONO25	HCONO25R	1100	blastx.2	5,10-methenyltetrahydrofolate synthetase [Homo	gb|AAC41945.1|	77%	251	610
						87%	147	245
						100%	3	68

				sapiens]		51%	481	579
HCONP44	HCONP44R	1101	blastx.2	H+-transporting ATP synthase (EC 3.6.1.34) 58K chain - human	pir|A33281|A33281	96% 66%	3 391	398 426
HCONR31	HCONR31R	1104	blastx.2	ezrin (AA 1-586) [Homo sapiens]	emb|CAA35893.1|	98%	3	281
HCONU03	HCONU03R	1105	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb|AAA52496.1|	92% 92% 53%	3 511 611	518 627 688
HCONW62	HCONW62R	1106	blastx.2	Human tetracycline transporter-like protein mRNA [Homo sapiens]	emb|CAA92577.1|	77% 85% 69% 36%	1 330 529 6	297 473 645 119
HCOOG32	HCOOG32R	1111	blastx.2	ornithine decarboxylase antizyme [Homo sapiens]	dbj|BAA13497.1|	97%	5	334
HCOOG37	HCOOG37R	1112	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	92%	78	482
HCOOI71	HCOOI71R	1114	blastx.2	calpactin I light chain [Bos taurus]	gb|AAA30423.1|	100%	64	354
HCOOI79	HCOOI79R	1115	blastx.2	beta-subunit [Bos taurus]	emb|CAA29094.1|	77% 50%	215 681	703 740
HCOOM18	HCOOM18R	1116	blastx.2	keratin 18 [Homo sapiens]	gb|AAA59461.1|	95% 100%	14 616	640 690
HCOOM73	HCOOM73R	1117	blastx.2	claudin-10 [Homo sapiens]	gb|AAC79506.1|	90%	26	694
HCOOQ46	HCOOQ46	1118	blastx.2	protein-tyrosine	emb|CAA48338.1|	100%	2	166

	R			phosphatase [Homo sapiens]				
HCOOT43	HCOOT43R	1120	blastx.2		gb|AAA35646.1|	100%	95	439
HCOOT68	HCOOT68R	1121	blastx.2	neutral protease alpha subunit [Homo sapiens] (AF019661) zeta proteasome chain; PSMA5 [Mus musculus]	gb|AAC69149.1|	99% 77%	171 473	470 652
HCOOU56	HCOOU56R	1122	blastx.2	(AF143815) ribosomal protein [Bos taurus]	gb|AAD33912.1|AF143815_1	55% 62% 52%	30 233 698	515 406 748
HCOOW72	HCOOW72R	1123	blastx.2	keratin 18 [Homo sapiens]	gb|AAA59461.1|	78%	49	552
HCOOX48	HCOOX48R	1126	blastx.2	(AF095770) PTH-responsive osteosarcoma D1 protein [Homo sapiens]	gb|AAD25980.1|AF095770_1	87% 83%	218 330	310 365
HCOOY43	HCOOY43R	1127	blastx.2	THIOREDOXIN PEROXIDASE 1 (THIOREDOXIN-DEPENDENT PEROXIDE 1 (NATURAL KILLER CELL ENHANCING FACTOR B) (NKEF-B).	sp|P32119|TDX1_HUMAN	91%	22	426
HCOPB03	HCOPB03R	1129	blastx.2	ribosomal protein L19 - rat	pir|A56846|A56846	98% 62%	11 367	367 573

HCOPC45	HCOPC45R	1130	blastx.2	homologue of yeast IPP isomerase [Homo sapiens]	emb|CAA34890.1|	96%	3	89
HCOPD67	HCOPD67R	1131	blastx.2	ubiquitin conjugating-protein [Oryctolagus cuniculus]	gb|AAAA31492.1|	91%	104	541
HCOPE27	HCOPE27R	1132	blastx.2	serine protease homolog=NES1 [human, mammary epithelial cells, 76N, Peptide, 276 aa] [Homo sapiens]	gb|AAB46780.1|	99%	2	400
HCOPI09	HCOPI09RA	1134	blastx.2	fused; toxic gene [synthetic construct]	emb|CAA67127.1|	77%	62	310
HCOPO34	HCOPO34R	1136	blastx.2	(AF026246) HERV-E envelope glycoprotein [Homo sapiens]	gb|AAC52076.1|	65%	122	337
HCOPO88	HCOPO88R	1138	blastx.2	'human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj|BAA03401.1|	74%	4	507
HCOPV41	HCOPV41R	1139	blastx.2	MEMD protein [Homo sapiens]	emb|CAA71256.1|	97%	3	593
HCOPZ15	HCOPZ15R	1140	blastx.2	(AL031228) dJ1033B10.9 (Short-chain alcohol dehydrogenase family member (HKE6, RING2)) [Homo	emb|CAA20237.1|	96% 83%	7 572	579 625

HCOQA38	HCOQA38R	1141	blastx.2	sapiens] hBD-1 [Homo sapiens]	emb|CAA63405.1|	100%	68	271
HCOQB12	HCOQB12R	1143	blastx.2	(AC005600) tuberin [Homo sapiens]	gb|AAC34210.1|	100% 84%	4 308	309 346
HCOQD29	HCOQD29R	1147	blastx.2	S3 ribosomal protein [human, colon, Peptide, 243 aa] [Homo sapiens]	gb|AAB19349.1|	93% 55% 60%	16 552 632	588 707 730
HCOQD38	HCOQD38R	1148	blastx.2	HMG1 protein (AA 1 - 215) [Bos taurus]	emb|CAA31284.1|	95%	112	636
HCOQD49	HCOQD49R	1149	blastx.2	H+-transporting ATP synthase (EC 3.6.1.34) gamma chain precursor - bovine	pir|A32019|PWBOG	89% 65%	35 513	532 692
HCOQG37	HCOQG37R	1151	blastx.2	1-8D [Homo sapiens]	emb|CAA40625.1|	99% 100%	51 386	386 409
HCOQH46	HCOQH46R	1153	blastx.2	mucin MUC5B [Homo sapiens]	gb|AAC51343.1|	100% 64%	95 324	343 365
HCOQJ06	HCOQJ06R	1156	blastx.2	37kD Laminin receptor precursor /p40 ribosomal associated protein [Gallus gallus]	emb|CAA64147.1|	85% 58%	26 352	361 474
HCOQJ07	HCOQJ07R	1157	blastx.2	laminin-binding protein [Homo sapiens]	gb|AAA36161.1|	88%	6	656
HCOQJ79	HCOQJ79R	1159	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	83%	1	471
HCOQK86	HCOQK86R	1160	blastx.2	(AF038129) polyubiquitin [Ovis	gb|AAB92373.1|	94% 94%	4 4	456 456

						%		
				aries]		93%	28	456
						97%	4	255
						56%	440	487
						30%	440	556
						30%	440	556
HCOQL87	HCOQL87R	1161	blastx.2	glutathione S-transferase-pi [Homo sapiens]	gb|AAA56823.1|	56%	24	521
						41%	328	630
HCOQM87	HCOQM87R	1162	blastx.2	DRPLA protein [Mus musculus]	dbj|BAA13450.1|	52%	3	278
						47%	17	307
HCOQO79	HCOQO79R	1163	blastx.2	TIMP [Homo sapiens]	emb|CAA00898.1|	99%	2	574
						61%	561	608
HCOQP32	HCOQP32R	1164	blastx.2	elongation factor 1-alpha [Homo sapiens]	gb|AAA52367.1|	95%	15	149
						64%	151	381
HCOQS11	HCOQS11R	1165	blastx.2	acidic ribosomal phosphoprotein (P2) [Homo sapiens]	gb|AAA36472.1|	78%	102	398
HCOQU92	HCOQU92R	1167	blastx.2	protein translocation complex beta subunit [Canis familiaris]	gb|AAA19639.1|	100%	91	270
						100%	272	301
HCOQV27	HCOQV27R	1168	blastx.2	B4-2 protein [Homo sapiens]	gb|AAA85576.1|	96%	3	239
HCOQX38	HCOQX38R	1169	blastx.2	catechol O-methyltransferase [Homo sapiens]	emb|CAA81263.1|	96%	32	421
						91%	421	489
						80%	495	539
						100%	1	30
HCOQY33	HCOQY33R	1170	blastx.2	(AB000910) ribosomal protein [Sus scrofa]	dbj|BAA19210.1|	96%	49	321
HCOQZ86	HCOQZ86	1173	blastx.2	MHC class II HLA-	gb|AAA59782.1|	92%	106	357

	R			DR-beta-1 [Homo sapiens]		77%	351	470
HCORB20	HCORB20R	1175	blastx.2	(AB012122) TIP49 [Homo sapiens]	dbj|BAA28169.1|	98%	68	292
HCORB66	HCORB66R	1177	blastx.2	ribosomal protein L28 [Homo sapiens]	gb|AAA85657.1|	94%	75	482
HCORI18	HCORI18R	1178	blastx.2	hnRNP B1 protein [Homo sapiens]	dbj|BAA06031.1|	100%	120	317
						100%	2	124
						56%	126	305
						49%	123	305
						50%	129	305
						44%	120	317
						43%	132	317
						39%	2	124
HCORI25	HCORI25R	1179	blastx.2	pm5 protein [Homo sapiens]	emb|CAA40655.1|	98%	3	419
HCQCR82	HCQCR82R	1180	blastx.2	NADH dehydrogenase subunit 3 [Homo sapiens]	dbj|BAA77672.1|	91%	3	245
						90%	247	276
HCRME42	HCRME42R	1181	blastx.2	IGF binding protein-2 [Sus scrofa]	gb|AAC48728.1|	87%	1	369
						59%	297	416
						47%	332	427
HDABR53	HDABR53R	1182	blastx.2	ribosomal protein L23a [Homo sapiens]	gb|AAA03341.1|	97%	38	463
HDTAQ74	HDTAQ74R	1185	blastx.2	(AF112208) 13kDa differentiation-associated protein [Homo sapiens]	gb|AAF17196.1|AF1 12208_1	61%	115	408
						90%	38	136
						53%	326	409
						100%	273	293
HDTBP08	HDTBP08R	1186	blastx.2	UbcH5C [Homo sapiens]	gb|AAA91461.1|	97%	255	470

HDTDB88	HDTDB88R	1188	blastx.2	cytochrome c oxidase subunit 1 [Pan troglodytes]	dbj|BAA85270.1|	89% 88%	27 259	275 441
HE8QX44	HE8QX44R	1190	blastx.2	(AF010472) alpha-amidating monooxygenase [Homo sapiens]	gb|AAD01439.1|	93% 95% 80%	49 272 475	288 475 549
HE9QU94	HE9QU94R	1191	blastx.2	alligator Wilm's tumour protein [Alligator mississippiensis]	emb|CAA59735.1|	100%	3	170
HEAHF02	HEAHF02R	1192	blastx.2	(AC004044) predicted protein of unknown function [Arabidopsis thaliana]	gb|AAD15346.1|	37%	62	376
HEEAY40	HEEAY40R	1193	blastx.2	hypothetical protein 2 (tRNA external transcribed spacer) - 1	pir|S12206|S12206	100%	3	128
HEGAF68	HEGAF68R	1194	blastx.2	URF 3 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24033.1|	89% 89%	3 178	179 321
HFABK01	HFABK01R	1196	blastx.2	NADH dehydrogenase subunit 2 [Homo sapiens]	dbj|BAA07291.1|	80% 69%	2 186	190 284
HFIBG63	HFIBG63R	1198	blastx.2	cytokine SDF-1-beta [Homo sapiens]	gb|AAA97434.1|	96%	152	406
HFIJB15	HFIJB15R	1199	blastx.2	cytochrome oxidase subunit II [Homo sapiens]	gb|AAA20843.1|	93%	2	517
HFIXK57	HFIXK57R	1200	blastx.2	URF 3 (NADH dehydrogenase subunit)	emb|CAA24033.1|	90%	5	325

HFIZQ64	HFIZQ64R	1201	blastx.2	[Homo sapiens] (AK001601) unnamed protein product [Homo sapiens]	dbj|BAA91782.1|	100%	48	137
HFKKK36	HFKKK36R	1202	blastx.2	neutral calponin [Homo sapiens]	dbj|BAA12090.1|	96%	3	86
HFPEC93	HFPEC93R	1203	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24027.1|	87% 90%	66 1	527 66
HFPIX37	HFPIX37R	1204	blastx.2	(AL137696) hypothetical protein [Homo sapiens]	emb|CAB70878.1|	51% 41%	4 1	240 258
HFTDK36	HFTDK36R	1205	blastx.2	folate-binding protein precursor [Homo sapiens]	gb|AAA35822.1|	100% 38%	90 341	290 514
HFVIB28	HFVIB28R	1206	blastx.2	fused-ccdB [Escherichia coli]	emb|CAA71575.1|	70%	26	175
HFXGR60	HFXGR60R	1207	blastx.2	(AF034746) LNXp70 [Mus musculus]	gb|AAC40076.1|	56%	347	57
HHAUD07	HHAUD07R	1208	blastx.2	GTP-binding regulatory protein Gs alpha chain isoform - 1	pir|JH0813|JH0813	75%	337	459
HHBFO21	HHBFO21R	1209	blastx.2	URF 3 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24033.1|	83% 82% 64%	3 248 205	236 328 246
HHEVG50	HHEVG50R	1210	blastx.2	CAG-isl 7 [Homo sapiens]	gb|AAC16021.1|	93%	13	474
HHFGQ65	HHFGQ65RA	1211	blastx.2	(AJ249731) putative G8.1 protein [Homo	emb|CAB56506.1|	81% 77%	107 25	319 129

				sapiens]				
HHSFG15	HHSFG15R	1213	blastx.2	(AF014888) NADH dehydrogenase subunit 2 [Homo sapiens]	gb|AAC25447.1|	78%	3	743
HHSGP15	HHSGP15R	1214	blastx.2	cytochrome oxidase subunit III [Talpa europaea]	emb|CAB71165.1|	74% 62%	2 517	529 717
HHSGQ17	HHSGQ17R	1215	blastx.2	cytochrome b [Homo sapiens]	gb|AAA19775.1|	89%	79	435
HKBAD05	HKBAD05R	1216	blastx.2	(AB015335) HRIHFB2072 [Homo sapiens]	dbj|BAA88116.1|	84% 100%	61 324	351 356
HKZAE07	HKZAE07R	1218	blastx.2	Na+, K+-ATPase beta-subunit precursor [Sus scrofa]	gb|AAA31002.1|	100%	1	138
HKZAI14	HKZAI14R	1220	blastx.2	keratin 18 [Homo sapiens]	gb|AAA59461.1|	100%	3	368
HKZAI68	HKZAI68RA	1221	blastx.2	antigen [Homo sapiens]	gb|AAA02999.1|	100%	2	79
HKZAQ39	HKZAQ39R	1222	blastx.2	ubiquitin-conjugating enzyme UbcH7 [Homo sapiens]	emb|CAA63538.1|	100%	19	480
HKZAR58	HKZAR58R	1223	blastx.2	(AC005545) AP-3 complex delta subunit, partial CDS [Homo 1	gb|AAC34214.1|	98%	3	266
HKZAS59	HKZAS59R	1224	blastx.2	ATP synthase beta subunit precursor [Homo sapiens]	gb|AAA51809.1|	100%	1	462
HKZAS64	HKZAS64R	1225	blastx.2	nephropontin [Homo sapiens]	gb|AAA17675.1|	98%	1	276

				sapiens]				
HKZAS84	HKZAS84R	1226	blastx.2	calpain II regulatory subunit (EC 3.4.22.17) [Bos taurus]	gb|AAA30422.1|	100%	2	103
HKZAV69	HKZAV69R	1227	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	100%	8	412
HKZAV72	HKZAV72R	1228	blastx.2	fibronectin precursor [Homo sapiens]	emb|CAA26536.1|	100%	2	163
HKZBB22	HKZBB22R	1230	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj|BAA36501.1|	100%	8	520
HKZBS89	HKZBS89R	1231	blastx.2	ferritin heavy subunit [Homo sapiens]	gb|AAA35830.1|	100%	1	381
HLDQQ80	HLDQQ80R	1232	blastx.2	ATPase subunit 6 [Papio hamadryas]	emb|CAA76999.1|	74% / 54%	2 / 153	142 / 257
HLDXE19	HLDXE19R	1233	blastx.2	neuron-restrictive silencer factor [Homo sapiens]	gb|AAC50115.1|	80%	17	187
HLICD55	HLICD55R	1234	blastx.2	glutamine:fructose-6-phosphate amidotransferase [Homo sapiens]	gb|AAA58502.1|	96%	56	148
HLJBI37	HLJBI37R	1236	blastx.2	H(+)-transporting ATP synthase [Bos taurus]	emb|CAA45865.1|	100% / 65% / 80% / 60% / 88%	165 / 329 / 83 / 481 / 450	335 / 610 / 187 / 555 / 476
HLTHA47	HLTHA47R	1237	blastx.2	100 kDa protein [Rattus norvegicus]	emb|CAA45756.1|	82% / 88%	187 / 380	393 / 406

HLTJA50	HLTJA50R	1238	blastx.2	(AK002071) unnamed protein product [Homo sapiens]	dbj|BAA92068.1|	63%	334	723
HLYDI57	HLYDI57R	1241	blastx.2	URF 1 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24026.1|	90%	2	565
HMCFO19	HMCFO19R	1242	blastx.2	hypothetical 18K protein - goldfish mitochondrion	pir|JC1348|JC1348	46%	104	361
HMCIZ44	HMCIZ44R	1243	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24027.1|	86% 74% 40%	1 377 207	342 517 389
HMCJE25	HMCJE25R	1244	blastx.2	cytochrome oxidase subunit I [Hylobates lar]	emb|CAA67630.1|	82% 77%	3 298	314 351
HMSPB25	HMSPB25R	1245	blastx.2	alcohol dehydrogenase [Homo sapiens]	gb|AAA51596.1|	75%	315	172
HMVBB04	HMVBB04R	1246	blastx.2	cytochrome-c oxidase (EC 1.9.3.1) chain I - western lowland 1	pir|C59153|C59153	86%	73	201
HNAAE01	HNAAE01R	1247	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj|BAA85438.1|	67% 67% 100% 100% 100% 100% 100% 100% 100%	95 96 90 89 92 91 93 94 91	196 197 155 154 157 156 158 159 153
HNBUY37	HNBUY37	1249	blastx.2	smooth muscle myosin	gb|AAB28951.1|	95%	77	289

	R							
				heavy chain isoform SM1 [human, umbilical 1				
HNBVL57	HNBVL57R	1250	blastx.2	growth-arrest-specific protein 2 [Homo sapiens]	gb|AAC52058.1|	74% 55%	242 70	514 384
HNHBC18	HNHBC18R	1251	blastx.2	OS9 [Homo sapiens]	gb|AAC39523.1|	100% 41% 46% 35%	1 245 315 244	243 403 404 435
HNJFE85	HNJFE85R	1252	blastx.2	(AL031670) dJ681N20.2 (similar to FTLL1(ferritin, light 1	emb|CAB43181.1|	97%	224	451
HNKCO29	HNKCO29R	1253	blastx.2	(AF044957) NADH:ubiquinone oxidoreductase B15 subunit [Homo sapiens]	gb|AAD05421.1|	95%	52	390
HNOAA22	HNOAA22R	1254	blastx.2	acidic ribosomal phosphoprotein (P1) [Homo sapiens]	gb|AAA36471.1|	91%	114	422
HNOAB88	HNOAB88R	1257	blastx.2	actin 2 protein [Strongylocentrotus purpuratus]	gb|AAA30032.1|	83% 81%	3 509	491 541
HNOAC15	HNOAC15R	1259	blastx.2	unnamed protein product [unidentified]	emb|CAB42187.1|	93%	1	87
HNOAE50	HNOAE50R	1260	blastx.2	ribosomal protein L21 [Homo sapiens]	emb|CAA61582.1|	98%	98	577
HNOAE65	HNOAE65R	1261	blastx.2	ribosomal protein L26 [Homo sapiens]	emb|CAA49189.1|	100%	101	535

HNOAF22	HNOAF22R	1262	blastx.2	ribosomal protein L21 [Homo sapiens]	emb|CAA61582.1|	100%	76	555
HNOAG34	HNOAG34R	1264	blastx.2	collagen alpha 1(I) chain - bovine (fragments)	pir|A91193|CGBO1S	64%	54	239
						72%	1	108
						75%	221	319
						37%	3	239
						67%	221	313
						39%	21	239
						44%	54	236
						36%	15	236
						37%	15	236
						44%	72	239
						39%	21	239
						42%	12	236
						38%	3	236
						38%	15	239
						45%	84	236
						48%	99	239
						35%	15	236
						41%	54	239
						35%	6	239
						36%	3	239
						62%	233	319
						42%	69	239
						47%	93	236
						36%	15	239
						38%	3	200
						45%	93	236
						35%	15	239
						38%	54	239

239	93	44%
236	6	41%
239	3	37%
236	69	41%
236	6	35%
239	15	34%
239	84	44%
322	218	48%
239	6	35%
236	21	36%
239	15	33%
239	3	36%
239	3	32%
319	218	48%
239	54	36%
322	227	52%
236	15	35%
328	233	50%
328	233	54%
322	227	51%
239	111	46%
319	218	47%
236	21	33%
322	233	53%
316	233	57%
239	114	42%
316	233	57%
316	233	53%
328	227	50%
328	227	51%

239	69	38%
236	3	33%
316	233	53%
96	1	59%
239	93	36%
358	233	45%
319	227	51%
322	227	50%
319	221	45%
319	218	47%
319	233	51%
316	212	45%
316	227	46%
316	221	46%
322	233	50%
322	221	44%
328	230	44%
328	227	45%
108	1	44%
239	93	38%
322	227	45%
316	227	50%
316	233	50%
316	227	50%
319	230	50%
319	227	43%
322	233	46%
316	221	46%
319	233	48%
316	227	46%

322	233	50%
316	227	51%
316	233	50%
316	227	41%
316	233	50%
322	233	46%
322	227	46%
328	242	44%
319	212	41%
316	227	46%
322	233	46%
105	1	45%
322	230	44%
123	1	39%
322	209	42%
316	260	63%
319	227	45%
105	1	44%
108	1	41%
316	227	43%
114	1	42%
105	1	42%
105	1	44%
316	233	46%
316	221	39%
93	1	45%
322	227	45%
93	1	41%
108	1	38%
322	233	46%

233	43%	322
221	42%	316
1	41%	108
1	39%	114
1	38%	108
212	40%	108
221	40%	316
1	41%	322
1	36%	108
233	38%	108
227	43%	328
227	38%	316
233	43%	316
221	43%	322
1	40%	316
1	37%	105
227	38%	108
1	43%	316
227	38%	93
1	47%	316
221	41%	93
227	40%	316
227	38%	316
1	38%	316
1	41%	93
1	38%	93
218	36%	108
260	38%	316
1	63%	316
	37%	105

108	1	35%
108	1	36%
108	1	33%
316	227	38%
316	227	43%
316	221	40%
108	1	38%
362	321	64%
105	1	34%
108	1	41%
108	1	41%
93	1	35%
123	1	31%
322	212	40%
66	1	50%
105	1	36%
93	1	41%
93	1	35%
105	1	37%
105	1	37%
108	1	36%
328	221	37%
105	1	34%
316	212	36%
316	233	39%
93	1	38%
105	1	40%
93	1	38%
108	1	38%
108	1	36%

93	1	41%
108	1	38%
108	1	33%
114	1	31%
105	1	37%
108	233	33%
322	1	40%
93	1	35%
105	1	31%
105	230	34%
316	227	37%
316	1	40%
93	1	38%
108	1	33%
96	218	37%
316	1	39%
123	233	31%
316	1	38%
105	1	36%
108	233	38%
316	233	39%
322	1	40%
93	1	38%
108	1	36%
105	233	37%
322	1	36%
93	1	32%
108	1	33%
108		30%
93		35%

108	1	33%
108	1	30%
316	218	38%
316	227	35%
108	1	38%
105	1	31%
93	1	35%
319	233	34%
322	233	36%
322	221	39%
316	233	35%
66	1	36%
316	233	35%
319	233	34%
71	238	38%
20	250	34%
226	357	45%
86	238	38%
214	357	44%
223	321	48%
77	235	39%
223	318	50%
226	318	48%
50	238	37%
71	238	35%
71	199	39%
86	238	47%
226	321	46%
214	318	47%
214	318	45%

37%	238	86
30%	238	80
45%	318	220
42%	360	226
48%	318	226
31%	238	71
51%	318	214
26%	253	68
50%	199	104
38%	238	98
46%	315	226
46%	315	226
44%	357	226
38%	238	104
37%	238	92
45%	318	226
40%	357	226
43%	318	223
39%	238	71
44%	318	214
39%	354	226
46%	318	223
44%	357	223
41%	238	104
35%	238	71
38%	238	71
34%	238	77
45%	318	217
44%	315	214
43%	321	214

223	321	44%
98	238	39%
71	238	35%
214	318	47%
214	321	42%
71	238	33%
71	238	36%
226	315	50%
223	318	40%
226	321	44%
71	238	35%
71	238	33%
71	238	35%
71	235	34%
68	238	35%
92	244	35%
92	238	38%
71	238	33%
98	238	35%
98	238	35%
71	238	35%
226	318	45%
226	318	47%
226	318	47%
226	318	45%
226	321	43%
217	318	42%
223	330	36%
223	321	44%
217	321	44%

89	235	34%
217	318	43%
217	318	40%
220	318	41%
214	330	35%
71	238	41%
3	65	47%
226	330	40%
226	318	41%
223	318	37%
214	318	37%
226	318	44%
226	321	39%
226	318	38%
226	321	43%
226	321	40%
226	312	41%
223	315	40%
214	315	39%
271	321	44%
226	318	56%
220	321	50%
223	321	40%
226	321	38%
226	357	34%
226	315	40%
226	318	38%
226	318	38%
271	318	52%
226	318	35%

HNOAH67	HNOAH67R	1266	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	38% / 33%	56 / 65	3 / 3
HNOAJ67	HNOAJ67R	1267	blastx.2	(AB000911) ribosomal protein [Sus scrofa]	dbj|BAA19211.1|	87% / 100%	2 / 69	358 / 524
HNOAL51	HNOAL51R	1270	blastx.2	(AD001528) spermidine aminopropyltransferase [Homo sapiens]	gb|AAB61308.1|	72% / 75%	70 / 3	255 / 74
HNOAO71	HNOAO71R	1273	blastx.2	MAP kinase kinase [Homo sapiens]	gb|AAA36318.1|	98%	62	283
HNOAP21	HNOAP21R	1274	blastx.2	Q1Z 7F5 [Homo sapiens]	gb|AAA36021.1|	91%	20	667
HNOAQ24	HNOAQ24R	1275	blastx.2	epoxide hydrolase [Homo sapiens]	gb|AAA52390.1|	89%	2	571
HNOAQ47	HNOAQ47R	1276	blastx.2	TAXREB107 [Homo sapiens]	dbj|BAA04491.1|	99%	1	618
HNOAR85	HNOAR85R	1278	blastx.2	(AF161378) HSPC260 [Homo sapiens]	gb|AAF28938.1|AF161378 1	88% / 92%	287 / 99	562 / 290
HNOAS07	HNOAS07R	1279	blastx.2	scar protein [Homo sapiens]	gb|AAA36597.1|	97% / 97%	96 / 1	521 / 108
HNOAS36	HNOAS36R	1280	blastx.2	proteoglycan core protein [Homo sapiens]	gb|AAB00774.1|	100%	3	254
HNOAS92	HNOAS92R	1281	blastx.2	glutathione transferase M1 [Homo sapiens]	gb|AAA59203.1|	100%	2	385
HNOAT76	HNOAT76R	1283	blastx.2	(AB016193) transcription factor	dbj|BAA36616.1|	100%	2	187

						%		
HNOAV91	HNOAV91R	1284	blastx.2	[Homo sapiens] ribosomal protein L28 [Homo sapiens]	gb|AAA85657.1|	99%	29	439
HNOBE83	HNOBE83R	1286	blastx.2	translation initiation factor eIF3 p40 subunit [Homo sapiens]	gb|AAD03465.1|	100% 60% 79%	2 525 694	598 692 765
HNOBV55	HNOBV55RA	1287	blastx.2	ribosomal protein L12 [Homo sapiens]	gb|AAA36157.1|	100% 74%	171 65	506 217
HNOCE63	HNOCE63R	1288	blastx.2	(AF083217) WD repeat protein WDR3 [Homo sapiens]	gb|AAD45865.1|AF083217_1	68% 30% 45%	2 442 393	388 819 557
HNOCL43	HNOCL43R	1289	blastx.2	alpha-1 type III collagen [Homo sapiens]	gb|AAA52002.1|	98%	2	193
HNOCN02	HNOCN02R	1290	blastx.2	TARBP-b gene product [Homo sapiens]	gb|AAA91344.1|	91%	7	666
HNOCN10	HNOCN10R	1291	blastx.2	(AF043254) heat shock protein 75 [Homo sapiens]	gb|AAC02679.1|	90% 40% 100%	4 488 435	423 622 464
HNOCR44	HNOCR44R	1292	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]	gb|AAA60282.1|	80%	3	440
HNOCU03	HNOCU03R	1293	blastx.2	translational elongation factor-1 alpha [Danio rerio]	emb|CAA54771.1|	74%	40	360
HNODG11	HNODG11R	1295	blastx.2	tumor protein (AA 1 - 172) [Homo sapiens]	emb|CAA34200.1|	71% 70% 66% 85%	93 262 482 552	362 498 580 611

						%	start	end
HNOJA93	HNOJA93R	1298	blastx.2	general transcription factor [Homo sapiens]	emb|CAA37375.1|	100%	1	453
HNOJB10	HNOJB10R	1299	blastx.2	(AF110731) antioxidant enzyme B166 [Homo sapiens]	gb|AAF03750.1|AF110731_1	98% 53% 54%	11 384 418	376 521 480
HNOJB57	HNOJB57R	1300	blastx.2	midkine [Homo sapiens]	dbj|BAA01457.1|	74%	92	520
HNOJH48	HNOJH48R	1304	blastx.2	(AF077054) unr protein [Homo sapiens]	gb|AAD27787.1|AF077054_1	100%	2	283
HNOJH52	HNOJH52R	1305	blastx.2	S-adenosylhomocysteine hydrolase [Homo sapiens]	gb|AAA51681.1|	100%	6	179
HNOJI82	HNOJI82R	1306	blastx.2	ubiquitin [synthetic construct]	gb|AAA57047.1|	94%	22	489
HNOJI85	HNOJI85R	1307	blastx.2	(AF035718) mesoderm-specific basic-helix-loop-helix protein; Pod-1 [Homo sapiens]	gb|AAC62514.1|	86%	13	513
HNOJJ20	HNOJJ20R	1308	blastx.2	ribosomal protein L23a [Homo sapiens]	gb|AAA03341.1|	98%	1	261
HNOJJ26	HNOJJ26R	1309	blastx.2	plasma gelsolin [Homo sapiens]	emb|CAA28000.1|	73%	2	568
HNOJK66	HNOJK66R	1310	blastx.2	von Willebrand factor prepropeptide [Homo sapiens]	gb|AAB59512.1|	90% 100% 26% 25% 25% 26%	1 408 16 13 307 91	459 491 396 324 402 405

HNOJM64	HNOJM64R	1312	blastx.2	alpha-tubulin III [Cricetulus griseus]	gb|AAA37026.1|	69%	218	256
						27%	319	399
						38%	343	402
						32%	16	171
HNOJO55	HNOJO55R	1313	blastx.2	Protein sequence and annotation available soon via Swiss-Prot; 1 [Homo sapiens]	emb|CAA62188.1|	97%	3	428
						93%	423	277
						100%	134	9
						66%	134	9
						53%	423	277
						40%	423	268
						48%	131	9
						36%	143	3
						37%	423	289
						39%	402	286
						44%	116	9
						30%	423	280
						33%	128	12
						28%	128	12
						23%	128	3
						30%	128	12
						42%	408	310
						32%	423	289
						35%	426	265
						27%	137	3
						37%	396	280
						30%	408	280
						22%	146	12
						35%	119	9
						41%	357	280

					28%	414	280
					34%	116	12
					37%	381	280
					25%	423	280
					23%	426	310
					27%	116	9
					35%	402	286
					35%	426	298
					28%	423	277
					28%	116	12
					39%	158	93
					31%	420	310
					35%	140	99
					25%	128	12
					43%	117	70
HNOJP42	HNOJP42R	1314	blastx.2	envelope protein [Homo sapiens]	gb|AAA88027.1|	71%	6	302
HNOJQ22	HNOJQ22R	1315	blastx.2	(AJ224875) glucosyltransferase [Homo sapiens]	emb|CAA12176.1|	100% 100%	217 1	510 219
HNOKA20	HNOKA20R	1316	blastx.2	signal recognition particle subunit 14 [Homo sapiens]	emb|CAA51838.1|	97%	38	259
HNOKG34	HNOKG34R	1318	blastx.2	hnRNPcore protein A1 [Homo sapiens]	emb|CAA56072.1|	100% 31%	43 52	510 324
HNOKI89	HNOKI89R	1323	blastx.2	(AF009368) Luman [Homo sapiens]	gb|AAB69652.1|	100%	2	370
HNOKT24	HNOKT24R	1326	blastx.2	ribosomal protein L6 [Homo sapiens]	emb|CAA49188.1|	89% 68%	74 3	457 191
HNOKU52	HNOKU52	1327	blastx.2	ribosomal protein L29	gb|AAC50499.1|	98%	33	509

	R			[Homo sapiens]				
HNOKV82	HNOKV82R	1328	blastx.2	(AF081484) alpha-tubulin isoform 1 [Homo sapiens]	gb|AAC31959.1|	100%	3	488
HNORA56	HNORA56R	1330	blastx.2	MHC class I A [Pan troglodytes]	gb|AAA88855.1|	93% 91% 96%	2 348 289	289 494 363
HNORB68	HNORB68R	1331	blastx.2	high mobility group protein 17 [Homo sapiens]	gb|AAA52678.1|	95%	4	186
HNORC14	HNORC14R	1332	blastx.2	hevin [Homo sapiens]	emb|CAA57650.1|	90%	2	496
HNORD11	HNORD11R	1333	blastx.2	ribosomal protein L5 [Rattus norvegicus]	gb|AAA42074.1|	93% 91%	179 7	394 183
HNORE65	HNORE65R	1334	blastx.2	ORF [Pan troglodytes]	dbj|BAA01980.1|	83%	77	355
HNORF03	HNORF03R	1335	blastx.2	(AL031228) dJ1033B10.2 (WD40 protein BING4 (similar to S. 1 sapiens)	emb|CAA20229.1|	89% 83% 90%	70 529 357	357 582 386
HNORF04	HNORF04R	1336	blastx.2	(AF196481) RING finger protein; FXY2 [Homo sapiens]	gb|AAF07341.1|AF196481_1	91%	4	144
HNORF05	HNORF05R	1337	blastx.2	"human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj|BAA03401.1|	98% 98%	2 321	319 485
HNORF13	HNORF13R	1338	blastx.2	TIMP [Homo sapiens]	emb|CAA00898.1|	74%	31	615
HNORH03	HNORH03R	1339	blastx.2	(AF110731) antioxidant enzyme 10731_1	gb|AAF03750.1|AF110731_1	95%	3	641

HNORH05	HNORH05R	1340	blastx.2	B166 [Homo sapiens] ubiquitin conjugating-protein [Oryctolagus cuniculus]	gb|AAA31492.1|	100%	43	498
HNORJ08	HNORJ08R	1342	blastx.2	ATPase [Mus musculus]	gb|AAA88243.1|	90% 90% 38%	3 308 514	350 496 606
HOCMA02	HOCMA02 RA	1344	blastx.2	(AF016365) hexokinase I [Homo sapiens]	gb|AAC15862.1|	100% 65% 86% 50%	3 3 490 490	497 497 558 555
HOCMC08	HOCMC08 R	1347	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	89%	19	423
HOCMF27	HOCMF27 R	1349	blastx.2	sorbitol dehydrogenase [Homo sapiens]	gb|AAA66064.1|	100%	3	395
HOCMG37	HOCMG37 R	1352	blastx.2	chaperonin (HSP60) [Homo sapiens]	gb|AAA36022.1|	98% 36%	4 326	351 424
HOCMI62	HOCMI62R	1353	blastx.2	S19 ribosomal protein [Homo sapiens]	gb|AAA89070.1|	67%	64	384
HOCMJ47	HOCMJ47R	1354	blastx.2	ribosomal protein L18a [Homo sapiens]	gb|AAC18781.1|	98% 100%	4 413	378 439
HOCMK20	HOCMK20 R	1355	blastx.2	stathmin [Xenopus laevis]	emb|CAA50562.1|	77% 64%	80 363	379 500
HOCML06	HOCML06 R	1356	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb|AAA52496.1|	97%	123	707

HOCML66	HOCML66R	1357	blastx.2	(AK000779) unnamed protein product [Homo sapiens]	dbj|BAA91374.1|	85% 76%	2 217	211 330
HOCMM5 2	HOCMM52R	1358	blastx.2	glutathione transferase T1 [Homo sapiens]	emb|CAA55935.1|	98% 100%	133 24	594 137
HOCMS75	HOCMS75R	1360	blastx.2	plakoglobin [Homo sapiens]	emb|CAA92522.1|	88%	6	500
HOCMS87	HOCMS87R	1361	blastx.2	insulin-like growth factor binding protein 5 [Homo sapiens]	gb|AAA53505.1|	70%	151	615
HOCMY53	HOCMY53R	1363	blastx.2	(AF028832) Hsp89-alpha-delta-N [Homo sapiens]	gb|AAC25497.1|	97% 100% 43%	97 309 45	312 416 113
HOCMY61	HOCMY61R	1364	blastx.2	ribosomal protein S15a [Rattus norvegicus]	emb|CAA54918.1|	99%	80	466
HOCMY79	HOCMY79R	1365	blastx.2	fau [Homo sapiens]	emb|CAA46716.1|	100% 100%	317 115	511 315
HOCOC38	HOCOC38R	1366	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp|Q16465|YZA1_HUMAN	100%	388	23
HOCOC94	HOCOC94R	1368	blastx.2	protein phosphatase 2A (AA 1 - 309) [Oryctolagus cuniculus]	emb|CAA68732.1|	98% 84% 66%	3 490 566	485 567 628
HOCOF35	HOCOF35R	1369	blastx.2	(AF059486) putative actin-binding protein DOC6 [Mus musculus]	gb|AAC31808.1|	51% 81% 47% 29% 28% 31%	224 100 495 31 511 139	706 279 647 273 711 282

HOCOF50	HOCOF50R	1370	blastx.2	FKBP52; 52 kD FK506 binding protein [Homo sapiens]	gb|AAA36111.1|	72% 46% 55% 43%	2 38 396 472	460 532 632 561
HOCOO62	HOCOO62R	1371	blastx.2	Ro ribonucleoprotein autoantigen (Ro/SS-A) precursor [Homo sapiens]	gb|AAA36582.1|	77%	42	596
HOCOP52	HOCOP52R	1372	blastx.2	spliceosomal protein [Homo sapiens]	gb|AAA60300.1|	67% 34% 39% 30% 42%	2 68 388 441 522	631 301 621 626 620
HOCOQ13	HOCOQ13R	1373	blastx.2	probable transmembrane protein TMC - human	pir|S70029|S70029	94% 75%	94 482	474 541
HOCOT70	HOCOT70R	1375	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	97%	8	412
HOCPF69	HOCPF69R	1377	blastx.2	(AJ001701) deoxyhypusine synthase [Homo sapiens]	emb|CAA04940.1|	96% 72% 50%	1 347 396	351 412 455
HOCPH40	HOCPH40R	1380	blastx.2	3-oxoacyl-CoA thiolase propeptide (424 AA) [Homo sapiens]	emb|CAA31412.1|	100%	2	217
HOCPH44	HOCPH44R	1381	blastx.2	antisecretory factor-1 [Homo sapiens]	gb|AAB54057.1|	96% 48%	3 286	275 408
HOCPI53	HOCPI53R	1383	blastx.2	collagen (VI) alpha-1 chain [Homo sapiens]	emb|CAA67576.1|	76% 56% 100%	41 225 4	322 365 39

HOCPM39	HOCPM39R	1385	blastx.2	pinin [Bos taurus]	gb|AAB48302.1|	86%	23	136
HOCPP65	HOCPP65R	1386	blastx.2	histone H2A.F [Gallus gallus]	emb|CAA32094.1|	85% 53%	63 350	314 445
HOCPP80	HOCPP80R	1387	blastx.2	isoleucyl-tRNA synthetase [Homo sapiens]	gb|AAA80153.1|	88%	3	563
HOCPQ59	HOCPQ59R	1389	blastx.2	(AF006012) dishevelled 2 [Homo sapiens]	gb|AAB65243.1|	84% 100%	38 5	394 52
HOCPQ66	HOCPQ66R	1390	blastx.2	clathrin-associated protein 17 [Rattus norvegicus]	gb|AAA40742.1|	100%	2	427
HOCPQ75	HOCPQ75R	1391	blastx.2	TIMP [Homo sapiens]	emb|CAA00898.1|	86%	26	646
HOCPR01	HOCPR01R	1392	blastx.2	alpha subunit (aa 1-394) [Bos taurus]	emb|CAA27137.1|	100% 91%	39 2	536 37
HOCPR29	HOCPR29R	1393	blastx.2	translation initiation factor [Homo sapiens]	emb|CAA56074.1|	96% 48% 40%	1 603 575	579 776 679
HOCPR53	HOCPR53R	1395	blastx.2	P311 HUM [Homo sapiens]	gb|AAA74903.1|	77%	86	268
HOCPR77	HOCPR77R	1397	blastx.2	similar to emb-5 protein of C.elegans. [Homo sapiens]	dbj|BAA11479.1|	92%	1	249
HOCPS35	HOCPS35R	1399	blastx.2	(AB017018) JKTBP2 [Homo sapiens]	dbj|BAA75239.1|	100%	3	203
HOCPU03	HOCPU03R	1400	blastx.2	dihydropyridine-sesitive L-type calcium channel alpha-2 subunit	gb|AAA41088.1|	65% 54%	7 441	456 512

				[Rattus norvegicus]				
HOCPU30	HOCPU30R	1401	blastx.2	KDEL receptor [Homo sapiens]	emb|CAA39371.1|	66% 69% 61%	342 139 242	518 267 334
HOCPU68	HOCPU68R	1402	blastx.2	preprocathepsin B [Homo sapiens]	gb|AAA52129.1|	98%	3	269
HOCPV29	HOCPV29R	1403	blastx.2	thrombin inhibitor [Homo sapiens]	emb|CAA80373.1|	58%	243	593
HOCPV67	HOCPV67R	1404	blastx.2	serine/threonine-protein kinase PRP4m [Mus musculus]	gb|AAB03269.1|	88% 87%	58 345	327 518
HOCPV72	HOCPV72R	1405	blastx.2	(AF132952) CGi-18 protein [Homo sapiens]	gb|AAD27727.1|AF132952_1	91% 84%	33 184	203 318
HOCPW56	HOCPW56R	1406	blastx.2	ARL3 [Homo sapiens]	gb|AAA21654.1|	100%	2	502
HOCPW81	HOCPW81R	1408	blastx.2	cysteine protease Mch2 isoform alpha [Homo sapiens]	gb|AAC50168.1|	91%	2	739
HOCPX01	HOCPX01R	1409	blastx.2	(AF052514) thymus specific serine peptidase [Homo sapiens]	gb|AAC33563.1|	73% 50% 87% 28%	129 113 566 483	440 571 589 587
HOCPZ76	HOCPZ76R	1411	blastx.2	(AF002705) beta prime COP [Rattus norvegicus]	gb|AAB88018.1|	99% 77%	2 423	421 524
HOCQA26	HOCQA26R	1413	blastx.2	interferon-inducible protein [Homo sapiens]	emb|CAA59337.1|	100% 71% 47%	205 410 360	378 571 473
HOCQA37	HOCQA37	1414	blastx.2	lactoyl glutathione	dbj|BAA02572.1|	100%	136	276

						63	131
R			lyase [Homo sapiens]		82%	63	131
HOCQA86 R	1415	blastx.2	proteoglycan core protein [Homo sapiens]	gb|AAB00774.1|	91%	84	392
HOCQB18 R	1416	blastx.2	general transcription factor [Homo sapiens]	emb|CAA37375.1|	99%	3	473
HOCQB48 R	1417	blastx.2	Na+-independent neutral and basic amino acid transporter [Homo sapiens]	dbj|BAA11541.1|	97%	4	555
HOCQC71 R	1419	blastx.2	calcium binding protein [Homo sapiens]	dbj|BAA23325.1|	98%	126	419
HOCQD10 R	1420	blastx.2	ribosomal protein L12 [Homo sapiens]	gb|AAA36157.1|	88%	152	637
HOCQD19 R	1421	blastx.2	retinoid X receptor alpha [Rattus norvegicus]	gb|AAA42093.1|	80% 56%	3 424	392 567
HOCQD42 R	1423	blastx.2	(AF095257) heterogeneous nuclear ribonucleoprotein C1/C2; hnRNP C1/C2 [Mus musculus]	gb|AAD03717.1|	86% 65% 59% 53%	1 299 474 474	294 475 614 599
HOCQD45 R	1424	blastx.2	glyceraldehyde-3-phosphate dehydrogenase (EC 1.2.1.12), euthermic tissue - desert jerboa	pir|JC5370|JC5370	91% 54% 100%	92 495 457	463 785 492
HOCQE35 R	1425	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]	gb|AAA60282.1|	74%	6	437

HOCQG94	HOCQG94R	1426	blastx.2	actin [Brugia malayi]	emb|CAB06627.1|	62% 58%	9 254	629 652
HOCQH81	HOCQH81R	1427	blastx.2	(AF038952) cofactor A protein [Homo sapiens]	gb|AAC39866.1|	91%	144	242
HOCQI31	HOCQI31R	1428	blastx.2	prostacyclin-stimulating factor, PGI2-stimulating factor, PSF 1 sapiens]	gb|AAB32370.1|	100%	1	324
HOCQM24	HOCQM24R	1430	blastx.2	hnRNPcore protein A1 [Homo sapiens]	emb|CAA56072.1|	100%	3	230
HODAF78	HODAF78R	1431	blastx.2	(AC004638) amyloid precursor protein-binding protein 1 (APP-B1) [Homo sapiens]	gb|AAC23784.1|	55%	8	274
HODCZ52	HODCZ52R	1434	blastx.2	tissue-specific secretory protein [synthetic construct]	emb|CAA01433.1|	66% 100%	26 216	133 233
HODDI57	HODDI57R	1435	blastx.2	(AF113514) histone acetyltransferase MORF [Homo sapiens]	gb|AAF00095.1|	96% 68% 36% 33% 35% 30% 25% 30% 27% 26% 37% 46%	6 164 12 12 45 39 30 24 36 13 81 53	167 304 158 170 164 164 176 164 146 168 161 91

Clone	SEQ name	#	Method	Description	Accession	%	start	end
						34%	6	101
HODER57	HODER57R	1440	blastx.2	Method: conceptual translation supplied by author [Homo sapiens]	gb|AAA91179.1|	66%	83	289
HODFC44	HODFC44RP00	1449	blastx.2	(AF216754) over-expressed breast tumor protein [Homo sapiens]	gb|AAF25683.1|AF216754_1	98%	1	207
HODFJ14	HODFJ14R	1453	blastx.2	Ran_GTP binding protein 5 [Homo sapiens]	emb|CAA70103.1|	100%	2	181
HODFO16	HODFO16R	1459	blastx.2	selenium donor protein [Homo sapiens]	gb|AAA87567.1|	100%	305	409
HODFO64	HODFO64R	1460	blastx.2	zinc finger protein ZNF136 [Homo sapiens]	gb|AAC50261.1|	78%	16	153
						70%	1	153
						70%	1	153
						64%	1	153
						66%	1	153
						71%	16	153
						58%	1	153
						58%	1	153
						60%	1	156
						58%	1	153
						58%	1	153
						58%	7	153
						54%	10	153
						75%	150	233
						67%	156	239
						77%	174	239
						90%	174	233
						62%	153	239

Clone	Clone R	SEQ ID	Program	Description	Accession	%		
						45%	159	329
						63%	153	242
						80%	174	233
						60%	153	236
						54%	49	153
						51%	242	328
						70%	269	328
						55%	239	319
						60%	174	233
						43%	242	337
						81%	272	319
						54%	248	319
						32%	159	314
						34%	174	314
						48%	242	328
						52%	251	319
						41%	239	325
						41%	248	319
						37%	239	325
HODFP51	HODFP51R	1461	blastx.2		gb|AAA36648.1|	77%	74	439
						44%	104	436
HODFQ19	HODFQ19R	1462	blastx.2	pre-mRNA splicing factor [Homo sapiens]	gb|AAB03694.1|	89%	7	453
HODFQ37	HODFQ37R	1463	blastx.2	DNA topoisomerase III [Homo sapiens]	gb|AAB32776.1|	92%	47	499
						93%	2	97
						25%	338	493
HODGB69	HODGB69R	1475	blastx.2	pancreatic peptidylglycine alpha-amidating monooxygenase, 1 1 protein 4 [Homo sapiens]	gb|AAB58952.1|	89%	3	470
HODGH30	HODGH30	1478	blastx.2	IDN4-GGTR14	sp|Q9Y6Y5|Q9Y6Y5	90%	31	129

				PROTEIN.				
HODGH43	HODGH43R	1479	blastx.2	(AB005878) BYJ15 [Nicotiana tabacum]	dbj|BAA21615.1|	100% / 28%	48 / 217	116 / 363
HODGH65	HODGH65R	1480	blastx.2	IDN4-GGTR14 PROTEIN.	sp|Q9Y6Y5|Q9Y6Y5	96%	41	127
HODGN53	HODGN53R	1482	blastx.2	(AF186461) ring finger protein Fxy [Rattus norvegicus]	gb|AAD56247.1|AF186461_1	39%	95	475
HODGQ52	HODGQ52R	1487	blastx.2	unnamed protein product [unidentified]	emb|CAB42187.1|	82% / 25%	1 / 118	84 / 189
HODGW91	HODGW91R	1489	blastx.2	phosphofructokinase [Homo sapiens]	gb|AAA79220.1|	100% / 93%	101 / 394	3 / 347
HODGZ63	HODGZ63R	1493	blastx.2	putative [Caenorhabditis elegans]	gb|AAA28195.1|	49% / 57%	190 / 470	462 / 532
HODHD23	HODHD23R	1495	blastx.2	fused-ccdB [Escherichia coli]	emb|CAA71575.1|	92%	24	104
HODHE54	HODHE54R	1498	blastx.2	lysyl oxidase-like protein [Homo sapiens]	gb|AAA50162.1|	100% / 96% / 32%	24 / 323 / 94	323 / 418 / 348
HODHE88	HODHE88R	1499	blastx.2	(AK001737) unnamed protein product [Homo sapiens]	dbj|BAA91871.1|	83%	29	196
HODHG56	HODHG56R	1500	blastx.2	(AF151888) CGI-130 protein [Homo sapiens]	gb|AAD34125.1|AF151888_1	100%	121	231
HODHK86	HODHK86R	1503	blastx.2	(AB005299) BAI 3 [Homo sapiens]	dbj|BAA25363.1|	93% / 88% / 48%	2 / 413 / 207	289 / 568 / 590
HODJL36	HODJL36R	1505	blastx.2	(AL031177)	emb|CAA20118.1|	40%	254	436

	A							
	A			dJ889N15.2.2 (26S Proteasome subunit p28 (Ankyrin 1		32%	26	118
HODJZ09	HODJZ09R	1506	blastx.2	prepronociceptin [Homo sapiens]	emb|CAA66039.1|	98%	64	558
HODKB82	HODKB82 R	1508	blastx.2	serine/threonine kinase [Rattus norvegicus]	emb|CAB06294.1|	96% 28%	3 348	338 473
HODKD64	HODKD64 R	1514	blastx.2	(AL096881) hypothetical protein [Homo sapiens]	emb|CAB51405.1|	66%	503	333
HODKK26	HODKK26 R	1519	blastx.2	calmodulin [Homo sapiens]	dbj|BAA08302.1|	99% 45% 34% 100% 75%	59 41 38 463 417	424 286 391 507 464
HODKK40	HODKK40 R	1520	blastx.2	ribosomal protein S6 [Homo sapiens]	gb|AAA60289.1|	99%	1	624
HODKK73	HODKK73 R	1521	blastx.2	acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb|AAA36470.1|	96% 71% 28%	3 331 416	344 651 682
HODKN65	HODKN65 R	1526	blastx.2	homologue to elongation factor 1-gamma from A.salina [Homo sapiens]	emb|CAA45089.1|	76%	5	538
HOECR39	HOECR39R	1527	blastx.2	(AF216306) DCRC-1 [Mus musculus]	gb|AAF32294.1|AF2 16306_1	58%	116	424
HOFAB77	HOFAB77R	1528	blastx.2	(AC007193) PPP5_HUMAN [Homo sapiens]	gb|AAD22669.1|AC0 07193_3	80% 47%	16 450	489 512

HOFMF79	HOFMF79RA	1530	blastx.2	cytochrome b [Canis familiaris]	gb|AAD04775.1|	80% 38%	4 305	339 430
HOFMJ88	HOFMJ88R	1531	blastx.2	receptor protein-tyrosine kinase [Homo sapiens]	gb|AAA61139.1|	76%	17	370
HOFMM84	HOFMM84R	1533	blastx.2	hydroxymethylglutaryl-CoA reductase (NADPH) (EC 1.1.1.34) - mouse (fragments)	pir|A43533|A43533	72% 85%	112 254	252 274
HOFMN93	HOFMN93R	1534	blastx.2	(AF133669) ARL-6 interacting protein-1 [Mus musculus]	gb|AAD33046.1|AF133669_1	61% 84%	36 214	299 327
HOFMP59	HOFMP59R	1535	blastx.2	mitochondrial acetoacetyl-CoA thiolase [Homo sapiens]	dbj|BAA01387.1|	77% 83%	1 369	360 422
HOFMT68	HOFMT68R	1536	blastx.2	RNAse L inhibitor [Mus musculus]	gb|AAC24730.1|	52% 40%	137 264	547 581
HOFMT69	HOFMT69R	1537	blastx.2	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN M (HNRNP M).	sp|P52272|ROM_HUMAN	80% 75% 39%	127 27 98	264 122 316
HOFMU92	HOFMU92R	1538	blastx.2	(AP000694) chromatin assembly factor 1, subunit B (p60) [Homo sapiens]	dbj|BAA89426.1|	63%	124	432
HOFNF63	HOFNF63R	1540	blastx.2	phopshomannomutase [Homo sapiens]	gb|AAC51368.1|	70%	26	478
HOFNF76	HOFNF76R	1541	blastx.2	(AB002806) OS-9	dbj|BAA24363.1|	94%	17	370

				isoform 2 is missing nt 1642-1806; OS-9 1				
HOFNG51	HOFNG51R	1542	blastx.2	(AB006679) ATP binding protein [Homo sapiens]	dbj|BAA21881.1|	79%	157	414
HOFNK44	HOFNK44R	1543	blastx.2	osteonectin precursor [Bos taurus]	gb|AAA30678.1|	96%	19	186
HOFNY53	HOFNY53R	1544	blastx.2	(AL034417) bK215D11.1 (RNA-binding protein regulatory subunit) [Homo sapiens]	emb|CAB52550.1|	91%	17	232
HOFOB65	HOFOB65R	1545	blastx.2	pyruvate dehydrogenase E1-alpha precursor [Homo sapiens]	gb|AAA60055.1|	74%	16	600
HOFOB79	HOFOB79RP00A	1546	blastx.2	KERATIN TYPE II CYTOSKELETAL 8 (FRAGMENT).	sp|Q29386|Q29386	84%	80	397
HOFOE22	HOFOE22R	1547	blastx.2	activin receptor type I [Bos taurus]	gb|AAB02696.1|	98%	22	345
HOFOF47	HOFOF47R	1548	blastx.2	(AF129075) T-COMPLEX PROTEIN 1, THETA SUBUNIT (TCP-1-THETA) [Homo sapiens]	gb|AAD17375.1|	98% 62% 100%	18 245 244	242 460 270
HOFOF56	HOFOF56R	1549	blastx.2	protein disulfide isomerase [Mus musculus]	gb|AAA39906.1|	85% 57% 64% 36%	115 109 35 204	219 219 115 350

HOGCF48	HOGCF48R	1553	blastx.2	hepatitis C-associated microtubular aggregate protein p44 [Homo sapiens]	dbj|BAA06043.1|	40%	263	352
						63%	245	592
						96%	76	240
						67%	414	587
						75%	523	570
HOGGG83	HOGGG83 R	1554	blastx.2	keratin [Homo sapiens]	emb|CAA31695.1|	79%	50	310
						81%	309	482
						59%	21	113
HOGCI28	HOGCI28	1556	blastx.2	complement component C3 [Homo sapiens]	gb|AAA85332.1|	93%	3	179
						83%	173	337
HOGCJ10	HOGCJ10R	1557	blastx.2	(AF032667) rexo70 [Rattus norvegicus]	gb|AAC01579.1|	94%	103	471
HOGCJ55	HOGCJ55R	1559	blastx.2	Grb14 [Homo sapiens]	gb|AAC15861.1|	95%	13	459
HOGCT44	HOGCT44	1562	blastx.2	casein kinase 1-alpha [Homo sapiens]	gb|AAC41760.1|	100%	31	183
HOGCV85	HOGCV85 R	1563	blastx.2	heparin binding protein [Homo sapiens]	gb|AAA58636.1|	76%	3	521
						73%	398	535
HOGCV93	HOGCV93 R	1564	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	79%	43	504
HOGCY12	HOGCY12 R	1565	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb|AAA18502.1|	97%	8	340
						41%	302	547
HOGCY58	HOGCY58 R	1566	blastx.2	lipocortin II [Homo sapiens]	dbj|BAA00013.1|	94%	3	329
						70%	332	517
						30%	150	326
HOGCY74	HOGCY74 R	1567	blastx.2	extracellular matrix protein BM-40 (AA 1 -	emb|CAA68724.1|	100%	3	260

HOGDD29	HOGDD29R	1568	blastx.2	303) [Homo sapiens] drebrin E2 [Homo sapiens]	gb|AAA16256.1|	88%	3	152
HOGDG03	HOGDG03R	1570	blastx.2	l-caldesmon II [Homo sapiens]	dbj|BAA14419.1|	95% 87%	191 393	388 491
HOGDI44	HOGDI44R	1572	blastx.2	neutrophil gelatinase associated lipocalin [Homo sapiens]	emb|CAA58127.1|	100%	55	192
HOGDO25	HOGDO25R	1574	blastx.2	XIAP associated factor-1 (ZAP-1) [Homo sapiens]	emb|CAA68030.1|	100%	2	163
HOGDO58	HOGDO58R	1575	blastx.2	acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb|AAA36470.1|	65%	86	373
HOGDP10	HOGDP10R	1576	blastx.2	keratin [Homo sapiens]	emb|CAA73943.1|	89%	3	287
HOGDQ95	HOGDQ95R	1578	blastx.2	FUSE binding protein 3 [Homo sapiens]	gb|AAC50893.1|	90% 32% 62% 48%	70 157 390 413	435 378 461 493
HOGDR70	HOGDR70R	1579	blastx.2	gamma subunit of CCT chaperonin [Homo sapiens]	emb|CAA52808.1|	83%	102	578
HOGDV93	HOGDV93R	1580	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb|AAA52496.1|	98%	4	414
HOGEA27	HOGEA27	1581	blastx.2	cytokeratin 8 [Homo	gb|AAA35763.1|	81%	2	160

	R			sapiens]		75%	3	482
HOGED85	HOGED85R	1582	blastx.2	AP-3 complex beta3A subunit [Homo sapiens]	gb|AAD03778.1|	85%	305	445
						25%	6	173
HOGEK25	HOGEK25R	1583	blastx.2	HLA-Aw34.2 antigen [Homo sapiens]	emb|CAA43874.1|	91%	38	316
HOGEN30	HOGEN30R	1584	blastx.2	regulatory subunit RI alpha [Homo sapiens]	emb|CAA01027.1|	83%	140	322
HOGEP69	HOGEP69R	1587	blastx.2	(AF056182) G-protein beta subunit [Emericella nidulans]	gb|AAC33436.1|	75%	83	205
						78%	219	260
HOGET60	HOGET60R	1588	blastx.2	Plakoglobin [Homo sapiens]	gb|AAA64895.1|	67%	155	367
HOGEW58	HOGEW58R	1590	blastx.2	focal adhesion kinase [Homo sapiens]	gb|AAA35819.1|	96%	4	414
HOGEZ03	HOGEZ03R	1592	blastx.2	kinase [Homo sapiens]	emb|CAA65450.1|	87%	52	144
						83%	18	53
HOOHL68	HOOHL68R	1601	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	92%	373	543
HOOHP84	HOOHP84R	1602	blastx.2	(AF013215) ribosomal protein S2 [Bos taurus]	gb|AAB65437.1|	82%	1	156
HOOHQ09	HOOHQ09R	1603	blastx.2	pfxblue fusion protein [synthetic construct]	gb|AAA72865.1|	63%	292	423
HOOHQ83	HOOHQ83R	1604	blastx.2	(AB000910) ribosomal protein [Sus scrofa]	dbj|BAA19210.1|	100%	85	399
HOOHR81	HOOHR81R	1605	blastx.2	pfxblue fusion protein [synthetic construct]	gb|AAA72865.1|	73%	336	458
						78%	464	505
HOOHT13	HOOHT13	1608	blastx.2	steroid receptor TR2-11	gb|AAA36761.1|	95%	3	188

	R							
	R			[Homo sapiens]		95%	193	264
HOOIA46	HOOIA46R	1610	blastx.2	cpn10 protein [Bos taurus]	emb|CAA49288.1|	100%	3	239
HOOIB54	HOOIB54R	1613	blastx.2	ribosomal protein L23a [Homo sapiens]	gb|AAB17510.1|	75%	89	199
HOOIG71	HOOIG71R	1615	blastx.2	ribosomal protein L27 [Homo sapiens]	gb|AAA19815.1|	98%	2	250
HOOJN84	HOOJN84R	1624	blastx.2	IEF 7442 [Homo sapiens]	emb|CAA51360.1|	100%	4	189
HOOJT32	HOOJT32R	1629	blastx.2	ribosomal protein L23a [Homo sapiens]	gb|AAA03341.1|	76%	34	237
HOOJT65	HOOJT65R	1630	blastx.2	(AJ388520) Ribosomal protein [Canis familiaris]	emb|CAB46822.1|	88%	43	123
HOOJY44	HOOJY44R	1636	blastx.2	human homologue of rat phosphatidylethanolamine binding protein [Homo sapiens]	dbj|BAA03684.1|	100%	2	184
HOOJY80	HOOJY80R	1637	blastx.2	cytochrome b5 [Homo sapiens]	gb|AAA35729.1|	98%	61	462
HOOJY92	HOOJY92R	1638	blastx.2	mitochondrial matrix protein [Homo sapiens]	gb|AAA60127.1|	98% 91% 66% 62%	48 403 513 341	344 513 686 445
HOOKN43	HOOKN43R	1640	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	63%	124	399
HOPJF95	HOPJF95R	1643	blastx.2	nucleolar protein p40	gb|AAB46731.1|	91%	209	511

						90%	130	219
				[Homo sapiens]				
HOPJG60	HOPJG60R	1644	blastx.2	(AF161386) HSPC268 [Homo sapiens]	gb|AAF28946.1|AF1 61386_1	85% 100%	237 86	461 280
HOPJG79	HOPJG79R	1646	blastx.2	prosomal P27K protein [Homo sapiens]	emb|CAA42052.1|	97% 57%	3 535	551 594
HOPJH65	HOPJH65R	1650	blastx.2	C gamma 3 [Homo sapiens]	emb|CAA27268.1|	46% 44% 34% 100%	42 182 172 2	476 460 543 49
HOPKA06	HOPKA06R	1656	blastx.2	homeotic protein HOX4E - human	pir|A42008|A42008	95%	2	655
HOPKG16	HOPKG16R	1659	blastx.2	scar protein [Homo sapiens]	gb|AAA36597.1|	98%	1	432
HOPKG47	HOPKG47R	1660	blastx.2	(AL050318) dJ977B1.5 (myosin regulatory light chain 2, smooth muscle isoform) [Homo sapiens]	emb|CAB75369.1|	98% 83%	46 525	519 560
HOPKG83	HOPKG83R	1661	blastx.2	elongation factor-1-beta [Homo sapiens]	emb|CAA43019.1|	99% 50% 84%	34 584 615	594 709 653
HOPKK38	HOPKK38R	1662	blastx.2	(AF077539) contains similarity to human melanoma antigen p15 (GB: U19796) [Caenorhabditis elegans]	gb|AAC26291.1|	34% 61%	60 379	380 417
HOPKN14	HOPKN14R	1663	blastx.2	aldolase A (EC 4.1.3.13) [Homo sapiens]	gb|AAA51690.1|	100%	2	460

HOPKN67	HOPKN67R	1664	blastx.2	17,000 dalton myosin light chain [Bos taurus]	emb|CAA38722.1|	94%	31	483
HOPKO04	HOPKO04RA	1665	blastx.2	(AL137423) hypothetical protein [Homo sapiens]	emb|CAB70733.1|	96%	1	81
HOPKO61	HOPKO61R	1666	blastx.2	Six5 [Mus musculus]	dbj|BAA11824.1|	76%	4	405
HOPKP45	HOPKP45R	1667	blastx.2	PAX8=paired-box-protein [alternatively spliced] [human, 1]	gb|AAB34216.1|	90% 90% 41% 35%	285 154 494 385	527 285 601 435
HOPKQ20	HOPKQ20R	1668	blastx.2	ribosomal protein S20 [Homo sapiens]	gb|AAA60286.1|	82%	115	435
HOPKQ82	HOPKQ82R	1669	blastx.2	(AF063243) ribosomal protein L30 [Bos taurus]	gb|AAC16388.1|	89%	28	498
HOPKR56	HOPKR56R	1670	blastx.2	unnamed protein product [Homo sapiens]	emb|CAA02873.1|	100%	6	173
HOPKU33	HOPKU33R	1671	blastx.2	ribosomal protein L11 [Homo sapiens]	gb|AAC15856.1|	86%	5	514
HOVBK49	HOVBK49R	1674	blastx.2	(AL080125) hypothetical protein [Homo sapiens]	emb|CAB45723.1|	85% 80% 75% 70% 79% 60% 73% 66% 63%	12 21 21 21 21 21 21 21 21	155 155 155 170 152 203 155 155 152

						61%	12	152
						63%	21	152
						40%	112	369
						40%	121	375
						38%	121	375
						38%	121	372
						36%	121	375
						46%	24	170
						34%	121	375
						34%	121	375
						32%	121	375
						38%	27	173
						42%	258	407
						34%	178	369
						36%	258	407
						37%	264	407
						34%	261	407
						39%	264	407
						34%	258	407
						32%	258	407
						31%	261	401
						30%	258	407
						36%	27	152
						52%	243	305
						28%	42	146
HOVBS15	HOVBS15R	1675	blastx.2	(AF105715) ubiquitous nuclear protein [Gallus gallus]	gb|AAD46422.1|AF105715_1	50%	246	434
						55%	50	109
						34%	112	249
HOVBX41	HOVBX41 R	1676	blastx.2	(AF025331) receptor for activated protein	gb|AAB81618.1|	86%	182	319
						75%	340	399

				Description	Accession	%		
				kinase C [Oreochromis niloticus]		72%	309	341
HOVCN03	HOVCN03R	1678	blastx.2	(AJ005798) thyroid hormone receptor alpha 2 [Sus scrofa]	emb|CAA06702.1|	66%	23	214
HOVCU89	HOVCU89R	1680	blastx.2	ribosomal protein L18a - rat	pir|S03957|R5RT18	72%	36	578
HOVCV33	HOVCV33R	1681	blastx.2	alpha-smooth muscle actin [Oryctolagus cuniculus]	emb|CAA43139.1|	92% 50%	1 287	321 454
HOVCW45	HOVCW45R	1682	blastx.2	(AL137585) hypothetical protein [Homo sapiens]	emb|CAB70827.1|	97% 100% 80% 21% 23%	2 372 463 5 35	220 464 522 196 190
HOVCZ45	HOVCZ45R	1684	blastx.2	retrovirus-related pol polyprotein pseudogene - human 1	pir|A44282|A44282	65% 61%	2 444	361 506
HOVDB61	HOVDB61R	1686	blastx.2	(AF067728) transactivating protein BRIDGE [Rattus norvegicus]	gb|AAD32925.1|AF067728_1	89%	91	204
HOVDB65	HOVDB65R	1688	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	96%	112	282
HOVDG71	HOVDG71R	1692	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	75% 81% 27%	116 3 103	226 98 210
HOVDH09	HOVDH09R	1693	blastx.2	binding protein [Homo sapiens]	gb|AAA36032.1|	98% 81%	15 405	299 485

HOVDH75	HOVDH75R	1694	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	81% 44% 81%	316 299 121	381 433 297
HOVDV70	HOVDV70R	1696	blastx.2	(AF151866) CGI-108 protein [Homo sapiens]	gb|AAD34103.1|AF1 51866 1	69%	126	254
HOVEF34	HOVEF34R	1703	blastx.2	MTHSP75 [Homo sapiens]	gb|AAA67526.1|	71% 90%	246 580	611 612
HOVEF81	HOVEF81R	1704	blastx.2	thyroid receptor interactor [Homo sapiens]	gb|AAA73877.1|	99%	49	393
HOVEL51	HOVEL51R	1707	blastx.2	cytochrome c-1 [Homo sapiens]	gb|AAA52135.1|	71% 77%	96 21	209 47
HOVEY58	HOVEY58R	1712	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	93%	277	369
HOVJJ09	HOVJJ09R	1717	blastx.2	Lutheran blood group glycoprotein [Homo sapiens]	emb|CAA58449.1|	100%	28	576
HOVJR56	HOVJR56R	1718	blastx.2	macrophage migration inhibitory factor [Homo sapiens]	gb|AAA21814.1|	100%	4	186
HOVJU75	HOVJU75R	1719	blastx.2	laminin-binding protein [Homo sapiens]	gb|AAA36161.1|	92%	64	648
HOVJW17	HOVJW17R	1720	blastx.2	HLA-DR-beta-A [Homo sapiens]	emb|CAA00596.1|	92%	95	217
HOVJY68	HOVJY68R	1721	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	94% 97%	217 15	570 221

HOVKE66	HOVKE66R	1723	blastx.2	unnamed protein product [unidentified]	emb|CAB69339.1|	35% 98%	149 2	241 487
HOVKG18	HOVKG18R	1725	blastx.2	PBG-D (aa 1-344) [Homo sapiens]	emb|CAA27801.1|	98%	2	379
HPAMB11	HPAMB11R	1726	blastx.2	transformation-related protein [Homo sapiens]	gb|AAA36776.1|	66%	353	601
HPAMB60	HPAMB60R	1727	blastx.2	poly(A)-binding protein [Homo sapiens]	gb|AAD08718.1|	80% 41% 31% 38%	2 65 65 496	679 556 553 684
HPAMB93	HPAMB93R	1729	blastx.2	heat-shock protein [Canis familiaris]	gb|AAA87172.1|	74% 95%	17 231	253 299
HPAMC04	HPAMC04R	1730	blastx.2	ADP-ribosylation factor [Homo sapiens]	gb|AAA57126.1|	50%	140	331
HPAMC19	HPAMC19R	1731	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb|CAA56869.1|	94%	89	676
HPAMC27	HPAMC27R	1732	blastx.2	protein synthesis initiation factor 4A [Mus musculus]	emb|CAA40268.1|	88% 50%	64 746	786 805
HPAMC90	HPAMC90R	1733	blastx.2	HBp15/L22 [Sus scrofa]	dbj|BAA04547.1|	97%	84	464
HPAMD56	HPAMD56R	1734	blastx.2	isolog of yeast sui1 and rice gos2; putative [Homo sapiens]	gb|AAA60602.1|	99%	136	456
HPAME35	HPAME35R	1735	blastx.2	amphiglycan [Homo sapiens]	emb|CAA47406.1|	80%	26	451

HPAMF16	HPAMF16R	1737	blastx.2	actin [Dictyostelium discoideum]	gb|AAA74186.1|	45% 73% 42%	178 452 619	414 520 732
HPAMF38	HPAMF38R	1738	blastx.2	(AF132970) CGI-36 protein [Homo sapiens]	gb|AAD27745.1|AF1 32970 1	76%	63	434
HPAMG44	HPAMG44R	1739	blastx.2	(AC004393) Similar to ribosomal protein L17 gb|X62724 from 1 1	gb|AAC18792.1|	61% 59%	331 117	612 374
HPAMG54	HPAMG54R	1740	blastx.2	(AF039752) histone deacetylase-2; HD-2 [Gallus gallus]	gb|AAB96924.1|	94% 95% 77% 68%	75 394 518 627	389 516 661 701
HPAMI11	HPAMI11R	1741	blastx.2	ribosomal protein S8 [Homo sapiens]	emb|CAA47670.1|	87%	11	592
HPAMJ71	HPAMJ71R	1742	blastx.2	ribosomal protein S7 [Homo sapiens]	emb|CAA81022.1|	97% 64% 63%	62 412 405	397 609 494
HPAMQ76	HPAMQ76R	1744	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	100%	2	190
HPAMT47	HPAMT47R	1745	blastx.2	(AF017153) putative RNA helicase and RNA dependent ATPase [Mus musculus]	gb|AAC36129.1|	100%	381	509
HPAMU33	HPAMU33R	1746	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	98% 80%	2 472	493 600
HPAMW4 4	HPAMW44R	1748	blastx.2	(AC006127) BRG-1-HUMAN [AA 812-1440]; nuclear protein GRB1; 1 1 SNF2L4	gb|AAC97986.1|	69% 91% 42%	221 46	354 358 159

				[Homo sapiens]				
HPAMY45	HPAMY45R	1749	blastx.2	(AC004908) similar to ribosomal protein L23a; similar to P29316 (PID·g132848) [Homo sapiens]	gb|AAD05196.1|	95% / 92%	294 / 220	563 / 297
HPAMZ14	HPAMZ14R	1750	blastx.2	triosephosphate isomerase [Rattus norvegicus]	gb|AAA42278.1|	93% / 61%	20 / 508	508 / 600
HPAMZ15	HPAMZ15R	1751	blastx.2	(AJ006776) IF2 protein [Homo sapiens]	emb|CAB44357.1|	95%	3	149
HPAMZ81	HPAMZ81R	1752	blastx.2	SP-40,40 prepropetide (AA -22 to 427) [Homo sapiens]	emb|CAA32847.1|	99% / 62%	3 / 581	599 / 676
HPANA05	HPANA05R	1753	blastx.2	cell surface glycoprotein [Homo sapiens]	gb|AAA36033.1|	99% / 61% / 88%	107 / 466 / 579	487 / 729 / 605
HPANA07	HPANA07R	1754	blastx.2	nucleolin [Homo sapiens]	gb|AAA59954.1|	92% / 34% / 58%	7 / 19 / 626	678 / 678 / 697
HPANA28	HPANA28R	1755	blastx.2	cell surface glycoprotein [Homo sapiens]	gb|AAA36033.1|	100%	2	376
HPANB32	HPANB32R	1757	blastx.2	(AF078820) high mobility group protein [Spalax ehrenbergi]	gb|AAC27653.2|	93%	5	235
HPANE49	HPANE49R	1759	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	99%	8	412
HPANE52	HPANE52R	1760	blastx.2	23 kD highly basic	emb|CAA40254.1|	95%	13	624

protein [Homo sapiens]

				Description	Accession	%		
HPANE87	HPANE87R	1761	blastx.2	lactate dehydrogenase B [Homo sapiens]	emb|CAA32033.1|	82% / 48%	119 / 34	592 / 174
HPANJ67	HPANJ67R	1762	blastx.2	lipocortin II [Homo sapiens]	dbj|BAA00013.1|	100%	3	119
HPCOJ59	HPCOJ59R	1766	blastx.2	predicted using Genefinder; Similarity to Drosophila RNA 1 this gene [Caenorhabditis elegans]	emb|CAB01127.1|	32%	60	260
HPCOL81	HPCOL81R	1770	blastx.2	histone H2A.Z (AA 1-127) [Bos taurus]	emb|CAA36554.1|	100%	36	179
HPCOO90	HPCOO90R	1771	blastx.2	ribosomal protein L37a [Homo sapiens]	gb|AAA60280.1|	98%	60	335
HPCOO95	HPCOO95R	1772	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp|Q16465|YZA1_HUMAN	100%	337	2
HPCOP23	HPCOP23R	1773	blastx.2	ribosomal protein [Homo sapiens]	gb|AAA16105.1|	88%	53	427
HPCOR52	HPCOR52R	1778	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	94%	136	306
HPCOV35	HPCOV35R	1780	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	94%	244	414
HPCOV41	HPCOV41R	1781	blastx.2	Csa-19 [Homo sapiens]	gb|AAA86463.1|	94%	54	356
HPCPD26	HPCPD26R	1784	blastx.2	alpha subunit (aa 1-394) [Bos taurus]	emb|CAA27137.1|	97%	3	314

HPCPH52	HPCPH52R	1788	blastx.2	antizyme inhibitor [Homo sapiens]	dbj|BAA23593.1|	100%	3	101
HPCPU27	HPCPU27R	1790	blastx.2	enhancer factor I chain A-D - rat	pir|JC2022|JC2022	61%	3	185
HPCQT88	HPCQT88R	1797	blastx.2	integrin associated protein [Homo sapiens]	emb|CAA80977.1|	93% 90%	1 422	327 451
HPCQX47	HPCQX47R	1800	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]	gb|AAA60282.1|	97% 92%	222 2	326 40
HPCTD21	HPCTD21R	1802	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	96%	336	506
HPCTD23	HPCTD23R	1803	blastx.2	putative progesterone binding protein [Homo sapiens]	emb|CAA73248.1|	98%	2	190
HPCTD25	HPCTD25R	1804	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	96%	374	544
HPCTF29	HPCTF29R	1806	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	96%	209	379
HPCTF83	HPCTF83R	1807	blastx.2	major histocompatibility complex class II antigen beta chain, 1 Partial Mutant, 57 aa] [Homo sapiens]	gb|AAB28826.1|	92%	58	177
HPCTI86	HPCTI86R	1809	blastx.2	H+-ATP synthase subunit b [Homo sapiens]	emb|CAA42782.1|	99%	1	306

HPCTO69	HPCTO69R	1811	blastx.2	(AF042857) lung cancer antigen NY-LU-12 variant A [Homo sapiens]	gb|AAC05826.1|	99%	77	538
HPCTV40	HPCTV40R	1815	blastx.2	ribosomal protein L35a (aa 1-110) [Rattus norvegicus]	emb|CAA27193.1|	99%	48	377
HPCTV53	HPCTV53R	1816	blastx.2	8.2 kDa differentiation factor [Homo sapiens]	emb|CAA56100.1|	85% 91% 100%	26 138 250	148 248 318
HPCTV92	HPCTV92R	1817	blastx.2	(AL117452) hypothetical protein [Homo sapiens]	emb|CAB55934.1|	85%	20	205
HPCTX22	HPCTX22R	1818	blastx.2	Aop1_Human, MER5(Aop1_Mouse)-like protein [Homo sapiens]	dbj|BAA08389.1|	100%	1	153
HPDOF81	HPDOF81R	1822	blastx.2	2,4-dienoyl-CoA reductase [Homo sapiens]	gb|AAA67551.1|	95% 64%	3 229	254 342
HPDOP05	HPDOP05R	1823	blastx.2	RNA polymerase II elongation factor-like protein [Homo sapiens]	emb|CAA87392.1|	100%	2	412
HPDOP20	HPDOP20R	1824	blastx.2	MHC HLA-DR-beta chain precursor old gene name 'HLA-DRA1' [Homo sapiens]	gb|AAA59831.1|	84%	45	542
HPDOS87	HPDOS87R	1825	blastx.2	40S ribosomal protein S14 [Podocoryne carnea]	emb|CAA50506.1|	95% 54% 91%	84 14 209	209 85 244

						%	start	end
HPDOU54	HPDOU54R	1826	blastx.2	N-acetyl-beta-glucosaminidase prepro-polypeptide [Homo sapiens]	gb|AAA51828.1|	54% 98% 89%	1 3 250	66 269 468
HPDOZ43	HPDOZ43R	1827	blastx.2	tripeptidyl peptidase II [Homo sapiens]	gb|AAA63263.1|	94%	64	489
HPDPC90	HPDPC90RA	1829	blastx.2	(AF073298) small EDRK-rich factor 2 [Homo sapiens]	gb|AAC63516.1|	98%	318	485
HPDPH14	HPDPH14R	1830	blastx.2	Q1Z 7F5 [Homo sapiens]	gb|AAA36021.1|	92% 87%	121 87	291 110
HPDPQ16	HPDPQ16R	1835	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	52%	349	519
HPDPR73	HPDPR73R	1836	blastx.2	(AJ010046) guanine nucleotide-exchange factor [Homo sapiens]	emb|CAA08974.1|	94%	131	460
HPDPS51	HPDPS51R	1837	blastx.2	(AF053356) ORF3, splicevariantc [Homo sapiens]	gb|AAC78797.1|	76%	2	214
HPDPS90	HPDPS90R	1838	blastx.2	(AB021643) gonadotropin inducible transcription repressor-3 [Homo sapiens]	dbj|BAA86989.1|	42% 36% 36% 32% 37% 48% 57% 60% 42%	128 125 125 155 292 325 325 325 325	337 319 319 319 399 402 387 384 402

HPDPX12	HPDPX12RP00B	1841	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	32%	390	518
						38%	325	402
						47%	399	461
						64%	396	437
						100%	14	418
HPDPY83	HPDPY83RP00B	1842	blastx.2	prothymosin alpha [Homo sapiens]	gb|AAA60213.1|	96%	199	393
						85%	199	387
HPDQC34	HPDQC34R	1843	blastx.2	(AF038129) polyubiquitin [Ovis aries]	gb|AAB92373.1|	95%	7	642
						94%	7	642
						97%	7	453
						94%	226	642
						64%	639	689
						61%	639	692
						61%	639	692
HPDQH11	HPDQH11R	1845	blastx.2	ribosomal protein L37a [Homo sapiens]	gb|AAA60280.1|	100%	68	334
HPDQH34	HPDQH34R	1846	blastx.2	(AF115850) PAR protein [Homo sapiens]	gb|AAD09822.1|	73%	3	371
						94%	345	494
						85%	226	267
						41%	178	240
HPDQI50	HPDQI50R	1847	blastx.2	succinate dehydrogenase flavoprotein subunit [Homo sapiens]	gb|AAA20683.1|	99%	18	539
HPDQI55	HPDQI55R	1848	blastx.2	(AL022577) dJ353H6.2.2 (SW1/SNF related, matrix associated, 1 (SNF2L1))	emb|CAA18608.1|	96%	1	441

				(PUTATIVE isoform 2) [Homo sapiens]				
HPDQR20	HPDQR20R	1851	blastx.2	RNA polymerase II 140 kDa subunit. [Homo sapiens]	emb|CAA45124.1|	91% 60%	10 555	639 761
HPDQR88	HPDQR88R	1852	blastx.2	similar to putative ATP-dependent RNA helicase K03H1.2 of C.elegans(S41025) [Homo sapiens]	dbj|BAA13213.1|	90% 80%	2 555	550 584
HPDQS25	HPDQS25R	1854	blastx.2	Cctg [Xenopus laevis]	emb|CAA59350.1|	85% 72%	4 258	264 410
HPDQT32	HPDQT32R	1858	blastx.2	neuroleukin [Homo sapiens]	gb|AAA36368.1|	100%	3	410
HPDQU81	HPDQU81R	1859	blastx.2	(AF068227) putative transmembrane protein [Homo sapiens]	gb|AAC27614.1|	98%	3	269
HPDQV07	HPDQV07R	1860	blastx.2	ribosomal protein S7 [Homo sapiens]	emb|CAA81022.1|	71%	35	574
HPDQW39	HPDQW39R	1862	blastx.2	(AF133093) ARD-1 N-acetyltransferase homologue [Mus musculus]	gb|AAF22155.1|AF133093_10	100% 70%	113 466	466 705
HPDQX13	HPDQX13R	1863	blastx.2	Histone H3 [Asparagus officinalis]	emb|CAA57811.1|	72%	119	337
HPDQY23	HPDQY23R	1864	blastx.2	DNA binding protein [Homo sapiens]	emb|CAB10847.1|	97%	3	443
HPDQZ65	HPDQZ65R	1869	blastx.2	(AF199488) beta-actin [Coturnix coturnix]	gb|AAF13710.1|AF199488_1	100% 63%	3 446	443 694

HPDRA44	HPDRA44R	1870	blastx.2	japonica] interferon regulatory factor 7 [Mus musculus]	gb|AAB18626.1|	72% 45%	4 362	240 559
HPDRA50	HPDRA50R	1871	blastx.2	actin [Diadromus pulchellus]	emb|CAA62806.1|	75%	16	189
HPDRF65	HPDRF65R	1872	blastx.2	ribosomal protein L8 [Homo sapiens]	emb|CAA82248.1|	58% 95% 50%	281 21 505	748 236 753
HPDRG73	HPDRG73R	1874	blastx.2	Ran [Canis familiaris]	emb|CAA77980.1|	94% 84%	50 451	460 528
HPDRM93	HPDRM93 R	1876	blastx.2	ribosomal protein L37 [Homo sapiens]	dbj|BAA04888.1|	86%	12	302
HPDRO04	HPDRO04R	1877	blastx.2	ribosomal protein L37 [Homo sapiens]	dbj|BAA04888.1|	100%	17	307
HPDRP36	HPDRP36R	1879	blastx.2	GLI-Krupple related protein [Homo sapiens]	gb|AAA59467.1|	100% 37% 78%	30 36 304	317 260 372
HPDRP41	HPDRP41R	1880	blastx.2	UHX1 protein [Homo sapiens]	gb|AAC50450.1|	88%	2	739
HPDRQ66	HPDRQ66R	1881	blastx.2	ribosomal protein [Homo sapiens]	emb|CAA81488.1|	91%	81	290
HPDRQ84	HPDRQ84R	1882	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb|CAA56869.1|	79%	4	555
HPDRR71	HPDRR71R	1883	blastx.2	(AF081484) alpha-tubulin isoform 1 [Homo sapiens]	gb|AAC31959.1|	98% 100%	16 381	390 422

HPDRS46	HPDRS46R	1885	blastx.2	(AF195094) gamma actin-like protein [Mus musculus]	gb|AAF08293.1|AF195094_1	98% 69%	15 301	299 369
HPDRS87	HPDRS87R	1886	blastx.2	peptidylprolyl isomerase [Homo sapiens]	emb|CAA37039.1|	100%	14	508
HPDRT37	HPDRT37R	1888	blastx.2	leukocyte antigen F [Homo sapiens]	emb|CAA34947.1|	60%	3	560
HPDRU03	HPDRU03R	1890	blastx.2	(AL021366) cICK0721Q.4.1 (PHD finger protein 2) (isoform 2) [Homo sapiens]	emb|CAA16159.1|	98% 90%	59 247	244 276
HPDRU37	HPDRU37R	1891	blastx.2	HLA-A9HH antigen [Homo sapiens]	dbj|BAA11936.1|	96%	1	231
HPDRV73	HPDRV73R	1893	blastx.2	vimentin [Homo sapiens]	gb|AAA61279.1|	90%	4	573
HPDRW09	HPDRW09R	1895	blastx.2	MHC HLA-DR2(non-Dw2/non-Dw12)a. glycoprotein beta-chain [Homo sapiens]	gb|AAA36278.1|	95%	1	222
HPDRY37	HPDRY37R	1897	blastx.2	type XVI collagen alpha 1 chain, alpha 1 (XVI) [human, 1	gb|AAB25797.1|	64% 88% 50% 50% 48% 48% 52% 50% 44%	2 310 310 307 310 310 307 310 286	598 516 522 516 522 522 489 486 522

498	310	46%
492	280	45%
504	295	42%
498	310	46%
522	310	46%
516	295	42%
492	310	53%
507	310	44%
522	310	45%
522	310	48%
489	280	44%
522	310	46%
489	295	47%
450	310	59%
522	310	46%
307	2	31%
477	310	47%
498	310	43%
492	280	40%
510	304	47%
304	14	37%
507	310	48%
498	289	44%
522	310	40%
456	280	43%
498	310	46%
492	295	42%
486	316	46%
88	2	65%
88	2	62%

453	310	43%
498	307	41%
88	5	64%
88	2	58%
486	307	41%
88	2	62%
489	319	43%
304	212	61%
486	310	40%
91	2	54%
304	197	44%
492	370	42%
520	212	30%
520	212	31%
88	2	58%
88	2	58%
310	206	48%
88	2	58%
91	5	55%
492	373	43%
316	212	45%
88	2	55%
91	2	56%
486	310	38%
492	310	32%
304	209	50%
319	188	38%
88	5	57%
88	2	54%
88	5	57%

88	5	57%
88	5	58%
88	2	55%
91	5	55%
88	5	51%
295	209	55%
286	188	48%
88	2	53%
88	2	51%
304	212	54%
304	212	48%
88	2	55%
88	2	55%
91	5	55%
91	2	50%
304	209	46%
304	188	41%
319	194	45%
91	5	48%
310	185	42%
82	2	51%
91	2	45%
100	2	47%
304	194	41%
91	5	51%
304	209	46%
319	200	40%
310	179	36%
88	2	55%
522	403	47%

304	209	46%
304	197	44%
88	5	53%
88	5	50%
88	2	51%
310	200	41%
88	5	53%
91	2	44%
91	5	53%
304	212	45%
307	209	48%
91	5	54%
304	212	48%
307	209	45%
88	5	53%
310	212	45%
319	212	42%
91	2	51%
304	209	43%
310	212	45%
313	206	47%
304	206	46%
304	188	40%
88	2	48%
88	5	53%
88	5	53%
88	2	48%
91	2	46%
88	5	50%
304	185	42%

41%	200	319
46%	5	88
48%	2	88
46%	221	304
45%	212	304
50%	5	88
48%	2	91
48%	2	88
48%	2	88
47%	212	304
53%	5	88
42%	209	307
44%	5	94
46%	188	304
41%	212	319
37%	188	304
58%	2	88
48%	2	88
50%	5	88
51%	2	88
52%	5	79
50%	5	88
44%	5	91
51%	2	88
50%	2	91
46%	2	88
46%	215	304
45%	212	316
40%	221	316
50%	5	88

41%	212	304
41%	212	304
40%	209	304
48%	2	88
44%	5	91
50%	5	88
44%	2	88
48%	2	88
51%	5	88
48%	2	91
48%	2	88
45%	209	307
43%	209	304
45%	206	304
41%	209	310
41%	200	307
54%	5	76
52%	14	79
48%	2	88
50%	5	88
50%	5	88
41%	212	304
42%	203	304
38%	212	319
50%	5	88
45%	5	97
45%	209	304
38%	188	304
36%	188	310
52%	23	91

%		
48%	2	88
48%	2	88
48%	212	304
41%	212	304
38%	188	304
52%	14	88
44%	2	88
51%	5	88
41%	188	304
40%	209	304
40%	212	307
40%	212	307
48%	236	310
41%	212	304
40%	209	304
37%	185	304
35%	185	304
53%	23	88
46%	5	88
54%	23	88
50%	203	283
44%	2	88
41%	212	304
43%	209	304
61%	32	88
51%	23	88
50%	5	79
41%	5	91
40%	197	304
50%	2	67

91	5	36%
283	188	38%
88	2	45%
73	5	45%
310	212	38%
366	310	47%
274	209	45%
292	212	37%
304	212	45%
304	212	41%
595	488	41%
509	432	38%
67	2	44%
256	200	50%
67	2	45%
88	5	37%
506	456	52%
64	2	47%
532	485	50%
497	399	35%
520	488	72%
532	488	53%
532	488	53%
494	429	45%
532	491	57%
562	488	40%
522	451	41%
271	188	39%
520	488	54%
520	488	63%

HPDRZ11	HPDRZ11R	1898	blastx.2	(AF012086) Ran. binding protein 2 [Homo sapiens]	gb|AAC05596.1|			
						40%	488	553
						63%	488	520
						50%	488	535
						44%	491	544
						42%	476	532
						37%	432	509
						40%	282	1
						31%	321	49
						32%	584	273
						40%	503	279
						36%	521	303
						42%	521	303
						60%	81	22
						53%	81	4
						53%	81	4
						44%	81	1
						55%	78	1
						50%	78	1
						56%	75	1
						48%	81	1
						53%	78	1
						52%	75	1
						48%	75	1
						42%	81	4
						44%	534	481
						98%	67	351
						48%	34	339
						60%	347	640
						50%	486	746
						46%	637	717

HPDRZ29	HPDRZ29R	1899	blastx.2	Lsc homologue [Homo sapiens]	emb|CAA70356.1|	50% 60% 35%	496 3 106	537 650 651
HPDVA01	HPDVA01R	1900	blastx.2	(AF153685) truncated calcium binding protein [Homo sapiens]	gb|AAD51611.1|AF153685_1	81%	720	484
HPDVA06	HPDVA06R	1901	blastx.2	proteasome subunit HsN3 [Homo sapiens]	dbj|BAA05647.1|	87% 66%	243 525	359 641
HPDVB70	HPDVB70R	1903	blastx.2	Ig mu chain C region, membrane-bound splice form - human	pir|S16510|MHHUM	93% 26%	92 11	820 706
HPDVC28	HPDVC28R	1904	blastx.2	retrovirus-related pol polyprotein pseudogene - human 1	pir|A44282|A44282	84%	62	436
HPDVG06	HPDVG06R	1906	blastx.2	immunoglobulin M heavy chain [Homo sapiens]	emb|CAA47708.1|	99%	3	326
HPDVI25	HPDVI25R	1908	blastx.2	APEX nuclease [Homo sapiens]	dbj|BAA02633.1|	83% 50%	94 334	417 633
HPDVI95	HPDVI95R	1909	blastx.2	(AF067370) cytoplasmic dynein light chain; Tctex-1 [Bos taurus]	gb|AAC39268.1|	100%	3	338
HPDVK79	HPDVK79R	1911	blastx.2	TRANSCRIPTION FACTOR BTF3 (RNA POLYMERASE B TRANSCRIPTION 1	sp|Q64152|BTF3_MOUSE	77%	61	570
HPDVK93	HPDVK93R	1912	blastx.2	ribosomal protein L18a - rat	pir|S03957|R5RT18	89%	116	634

HPDVL45	HPDVL45R	1914	blastx.2	cell cycle checkpoint control protein [Homo sapiens]	gb|AAB39928.1|	100%	4	303
HPDVL52	HPDVL52R	1915	blastx.2	hNop56 [Homo sapiens]	emb|CAA72789.1|	98% 56% 60% 29% 27% 31% 29% 28%	96 269 418 409 418 326 418 460	293 625 660 561 546 439 570 630
HPDVM61	HPDVM61R	1916	blastx.2	(AF123880) gag polyprotein [multiple sclerosis associated retrovirus element]	gb|AAD48374.1|	44%	5	268
HPDVM63	HPDVM63R	1917	blastx.2	(AF019036) human IgG1 neutralizing heavy chain with leader 1	gb|AAF21613.1|	97%	1	573
HPDVM86	HPDVM86R	1918	blastx.2	gamma-interferon-inducible protein precursor [Homo sapiens]	gb|AAA36105.1|	91% 100%	35 4	406 51
HPDVO67	HPDVO67R	1919	blastx.2	(AC005954) ZO-3 [Homo sapiens]	gb|AAC72274.1|	96% 84% 67% 41%	1 188 396 334	189 394 521 549
HPDVT37	HPDVT37R	1923	blastx.2	JUN-D protein [Mus musculus]	gb|AAA39345.1|	54% 78%	16 240	231 281
HPDVU28	HPDVU28	1924	blastx.2	protein phosphatase 2C	emb|CAA74245.1|	96%	163	693

				gamma [Homo sapiens]				
HPDVU72	HPDVU72 R	1925	blastx.2	similar to the Drosophila splicing regulator, 1 [Homo sapiens]	gb|AAA19604.1|	100% 37%	3 51	497 434
HPDVU88	HPDVU88 R	1926	blastx.2	glutathione peroxidase [Homo sapiens]	gb|AAA67540.1|	91% 72%	51 595	599 648
HPDVV78	HPDVV78 R	1927	blastx.2	keratin 18 [Homo sapiens]	gb|AAA59461.1|	66% 85%	129 2	638 124
HPDWA88	HPDWA88 R	1929	blastx.2	calcium binding protein [Homo sapiens]	dbj|BAA23325.1|	94%	168	473
HPDWC30	HPDWC30 R	1931	blastx.2	GlcNac-1-P transferase [Homo sapiens]	emb|CAB04787.1|	85%	285	404
HPDWD67	HPDWD67 R	1934	blastx.2	open reading frame (458 AA) [Homo sapiens]	emb|CAA36054.1|	79%	319	14
HPDWD69	HPDWD69 R	1935	blastx.2	ribosomal protein S26 [Homo sapiens]	gb|AAC26987.1|	100%	9	353
HPDWD81	HPDWD81 R	1936	blastx.2	HLA-DRB4*0103 [Homo sapiens]	emb|CAB06483.1|	99% 63% 75% 44%	4 333 479 460	330 593 526 513
HPDWE11	HPDWE11 R	1937	blastx.2	polyadenylate binding protein [Homo sapiens]	gb|AAB97309.1|	82%	2	121
HPDWF93	HPDWF93 R	1939	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb|CAA56869.1|	91%	16	483
HPDWL56		1941	blastx.2	complement factor B	gb|AAA16820.1|	96%	83	379

	R			[Homo sapiens]				
	R			[Homo sapiens]		89% 38%	660 83	770 145
HPDWN46	HPDWN46 R	1943	blastx.2	p67 myc protein [Homo sapiens]	dbj|BAA01374.2|	100% 66%	4 468	468 566
HPDWN65	HPDWN65 R	1944	blastx.2	ribosomal protein S6 [Homo sapiens]	gb|AAA60287.1|	50%	94	468
HPDWN69	HPDWN69 R	1945	blastx.2	cell surface glycoprotein [Homo sapiens]	gb|AAA36033.1|	73% 88%	77 3	379 95
HPDWO50	HPDWO50 R	1948	blastx.2	5S ribosomal protein [Mus musculus]	emb|CAA73041.1|	98% 66% 45%	54 379 416	377 528 535
HPDWO61	HPDWO61 R	1949	blastx.2	(AL049783) hypothetical protein [Homo sapiens]	emb|CAB42441.1|	97%	44	343
HPDWO82	HPDWO82 R	1950	blastx.2	cpn10 protein [Bos taurus]	emb|CAA49288.1|	100%	37	342
HPDWS61	HPDWS61 R	1951	blastx.2	unknown product specific to adipose tissue [Homo sapiens]	dbj|BAA08226.1|	97%	94	321
HPDWT55	HPDWT55 R	1952	blastx.2	alanine aminotransferase [Homo sapiens]	dbj|BAA01186.1|	100%	3	503
HPDWT56	HPDWT56 R	1953	blastx.2	(AF033095) testis enhanced gene transcript protein Homo 1	gb|AAB87479.1|	89% 100% 83%	66 620 697	650 694 750
HPDWU47	HPDWU47 R	1954	blastx.2	90-kDa heat shock protein [Sus scrofa]	gb|AAC48718.1|	93% 62%	58 662	678 757

HPDWU55	HPDWU55R	1955	blastx.2	protein disulfide isomerase-related protein (PDIR) [Homo sapiens]	dbj|BAA08451.1|	94% 37% 27%	1 1 1	726 624 636
HPDWU60	HPDWU60R	1956	blastx.2	(AF151063) HSPC229 [Homo sapiens]	gb|AAF36149.1|AF151063_1	93% 80%	176 598	565 657
HPDWU63	HPDWU63R	1957	blastx.2	cytokeratin 15 (AA 1-456) [Homo sapiens]	emb|CAA30535.1|	100%	2	370
HSCPJ17	HSCPJ17R	1962	blastx.2	(AL031670) dJ681N20.2 (similar to FTLL1(ferritin, light 1	emb|CAB43181.1|	97% 88%	260 405	403 485
HSDIA22	HSDIA22R	1963	blastx.2	ATPase 6 [Homo sapiens]	emb|CAA24031.1|	77% 87% 47%	123 2 238	308 121 306
HSDIX73	HSDIX73R	1965	blastx.2	NADH dehydrogenase subunit 4L [Homo sapiens]	dbj|BAA07296.1|	86% 100%	2 178	175 258
HSDZJ21	HSDZJ21R	1968	blastx.2	cytochrome-c oxidase (EC 1.9.3.1) chain I - western lowland 1	pir|C59153|C59153	82%	1	105
HSIFF84	HSIFF84R	1969	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj|BAA92096.1|	78%	143	6
HSKJR50	HSKJR50R	1970	blastx.2	translation initiation factor 3 47 kDa subunit [Homo sapiens]	gb|AAD03467.1|	86% 98% 50% 49% 45%	2 2 169 11 342	337 289 498 247 566
HSLHT27	HSLHT27R	1971	blastx.2	URF A6L (NADH dehydrogenase subunit)	emb|CAA24030.1|	80% 66%	2 2	139 121

				Description	Accession	%		
				[Homo sapiens]	gb|AAA20843.1|	93%	1	651
HSODB16	HSODB16R	1972	blastx.2	cytochrome oxidase subunit II [Homo sapiens]	gb|AAC26520.1|	90%	61	732
HSPSB24	HSPSB24R	1973	blastx.2	(AF076191) gamma-actin [Trichosurus vulpecula]	emb|CAA45963.1|	100%	3	539
HSPSB70	HSPSB70R	1974	blastx.2	BBC1 [Homo sapiens]	dbj|BAA11522.1|	98%	1	162
HSPSB74	HSPSB74R	1975	blastx.2	WT1 [Xenopus laevis]	dbj|BAA19482.1|	92%	2	691
HSPSB80	HSPSB80R	1976	blastx.2	unc-18homologue [Homo sapiens]	gb|AAA36033.1|	91% 83% 100%	124 4 309	318 180 374
HSPSC30	HSPSC30R	1977	blastx.2	cell surface glycoprotein [Homo sapiens]	gb|AAF29122.1|AF161507_1	91% 62% 54%	3 302 477	338 667 626
HSPSE86	HSPSE86R	1978	blastx.2	(AF161507) HSPC158 [Homo sapiens]	emb|CAA84414.1|	100%	3	191
HSPSG03	HSPSG03R	1979	blastx.2	protein phosphatase 2A 65 kDa regulatory subunit, alpha isoform [Sus scrofa]				
HSPSG13	HSPSG13R	1980	blastx.2	protein p68 (AA 1-614) [Homo sapiens]	emb|CAA33751.1|	95% 76%	221 738	739 788
HSPSG42	HSPSG42R	1981	blastx.2	(AF056490) cAMP-specific phosphodiesterase 8A [Homo sapiens]	gb|AAC39763.1|	98%	3	554
HSPSG50	HSPSG50R	1982	blastx.2	(AB036829) skeletal muscle and kidney	dbj|BAA92340.1|	80%	132	578

				enriched inositol phosphatase [Homo sapiens]				
HSPSG89	HSPSG89R	1983	blastx.2	(AF081484) alpha-tubulin isoform 1 [Homo sapiens]	gb|AAC31959.1|	97% 66%	106 629	645 700
HSPSH39	HSPSH39R	1984	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj|BAA36501.1|	87%	68	772
HSPSH41	HSPSH41R	1985	blastx.2	SP-40,40 prepropetide (AA -22 to 427) [Homo sapiens]	emb|CAA32847.1|	94% 95% 69%	129 367 480	404 498 683
HSPSH49	HSPSH49R	1986	blastx.2	ribosomal protein S6 [Homo sapiens]	gb|AAA60289.1|	83%	96	821
HSPSI65	HSPSI65R	1987	blastx.2	ribosomal protein L5 [Homo sapiens]	gb|AAA85654.1|	89%	3	755
HSPSJ71	HSPSJ71R	1988	blastx.2	medium tumor antigen-associated 61-kD protein [Homo sapiens]	gb|AAA35531.1|	91% 54%	2 660	346 749
HSPSJ72	HSPSJ72R	1989	blastx.2	BST-2 [Homo sapiens]	dbj|BAA05679.1|	92% 98% 50%	97 410 561	432 592 632
HSPSQ22	HSPSQ22R	1990	blastx.2	UbcH5C [Homo sapiens]	gb|AAA91461.1|	100%	7	339
HSPSQ57	HSPSQ57R	1991	blastx.2	(AF044671) MM46 [Homo sapiens]	gb|AAD02337.1|	100%	16	327
HSPSY67	HSPSY67R	1992	blastx.2	MITOGEN-ACTIVATED PROTEIN KINASE 3	sp|P27361|MK03_HUMAN	99% 51% 47%	2 385 402	385 537 545

				(EC 2.7.1.-) 1 1 1				
HSPSZ69	HSPSZ69R	1993	blastx.2	unnamed protein product [unidentified]	emb|CAB69291.1|	98% 90%	2 285	283 317
HSPTA57	HSPTA57R	1994	blastx.2	scar protein [Homo sapiens]	gb|AAA36597.1|	64% 100%	337 318	735 338
HSPTN57	HSPTN57R	1995	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj|BAA36501.1|	55% 37% 53%	2 178 356	157 360 400
HSSDM17	HSSDM17R	1996	blastx.2	(AL137714) hypothetical protein [Homo sapiens]	emb|CAB70887.1|	94%	55	210
HTLCU84	HTLCU84R	2001	blastx.2	RNA polymerase II elongation factor-like protein [Homo sapiens]	emb|CAA87392.1|	71%	185	541
HTSHG06	HTSHG06R	2002	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb|CAA24027.1|	87% 94%	107 1	364 105
HULAP70	HULAP70R	2005	blastx.2	cytochrome c oxidase subunit VIII precursor [Homo sapiens]	gb|AAA99313.1|	100%	251	349
HUSGA11	HUSGA11R	2006	blastx.2	carbonate dehydratase [Homo sapiens]	emb|CAA59331.1|	63% 100%	220 183	471 218
HUVFA39	HUVFA39R	2009	blastx.2	extensin [Volvox carteri]	emb|CAA46283.1|	34% 34%	460 436	92 8
HVCAA31	HVCAA31R	2010	blastx.2	myosin regulatory light chain [Homo sapiens]	gb|AAA67367.1|	98%	103	618
HVCAA37	HVCAA37R	2011	blastx.2	complement factor B [Homo sapiens]	gb|AAA16820.1|	96% 88%	322 3	687 137
HVCAA94	HVCAA94	2013	blastx.2	F-1-ATPase beta-	gb|AAA30395.1|	95%	1	435

	R			subunit precursor [Bos taurus]		50% 100%	440 489	643 512
HVCAB02	HVCAB02 R	2014	blastx.2	calcyphosine [Homo sapiens]	emb|CAA66609.1|	76% 67%	128 486	703 644
HVCAB03	HVCAB03 R	2015	blastx.2	40S ribosomal protein S12 [Sus scrofa]	emb|CAA55946.1|	92% 88%	386 133	664 288
HVCAB18	HVCAB18 R	2016	blastx.2	human homolog of DnaJ protein [Homo sapiens]	dbj|BAA02656.1|	89%	60	794
HVCAB52	HVCAB52 R	2018	blastx.2	'human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj|BAA03401.1|	98%	67	612
HVCAB57	HVCAB57 R	2019	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb|AAA52496.1|	98% 70%	1 330	333 524
HVCAB88	HVCAB88 R	2020	blastx.2	(AL022721) dJ109F14.2 (60S Ribosomal Protein RPL10A) [Homo sapiens]	emb|CAB38627.1|	99%	89	739
HVCAC42	HVCAC42 R	2021	blastx.2	diphtheria toxin receptor associated protein [Chlorocebus aethiops]	dbj|BAA01569.1|	67% 86% 38%	184 119 305	414 184 430
HVCAD52	HVCAD52 R	2022	blastx.2	translin [Homo sapiens]	emb|CAA55341.1|	72%	19	291
HVCAE01	HVCAE01 R	2023	blastx.2	laminin-binding protein [Homo sapiens]	gb|AAA36161.1|	99% 47%	64 633	606 758

HVCAE15	HVCAE15R	2024	blastx.2	lymphocyte antigen [Homo sapiens]	gb|AAA59705.1|	91%	3	695
HVCAE22	HVCAE22R	2025	blastx.2	proteasome subunit C2 [Homo sapiens]	dbj|BAA00656.1|	97% 90%	86 489	487 554
HVCAE56	HVCAE56R	2026	blastx.2	complement component C3 [Homo sapiens]	gb|AAA85332.1|	74%	75	707
HVCAG56	HVCAG56R	2027	blastx.2	ribosomal protein L7 [Homo sapiens]	emb|CAA37139.1|	99%	3	551
HVCAH03	HVCAH03R	2029	blastx.2	(AF030249) putative dienoyl-CoA isomerase [Homo sapiens]	gb|AAB86485.1|	96% 62%	63 577	599 657
HVCAH17	HVCAH17R	2030	blastx.2	precursor [Homo sapiens]	emb|CAA68392.1|	90% 92%	1 299	294 340
HVCAH56	HVCAH56R	2031	blastx.2	ribosomal protein L3 [Homo sapiens]	emb|CAA51839.1|	97%	3	407
HVCAI08	HVCAI08	2032	blastx.2	(AF008304) protein inhibitor of neuronal nitric oxide synthase [Oryctolagus cuniculus]	gb|AAC32530.1|	100%	130	375
HVCAI79	HVCAI79R	2034	blastx.2	sortilin [Homo sapiens]	emb|CAA66904.1|	80%	2	559
HVCAJ27	HVCAJ27R	2035	blastx.2	(AK000449) unnamed protein product [Homo sapiens]	dbj|BAA91172.1|	99%	88	537
HVCAJ81	HVCAJ81R	2036	blastx.2	(AB036060) ubiquitin [Oncorhynchus mykiss]	dbj|BAA88568.1|	100% 81%	97 404	405 469
HVCAJ95	HVCAJ95R	2037	blastx.2	(AF073298) small EDRK-rich factor 2	gb|AAC63516.1|	100%	34	210

				[Homo sapiens]				
HVCAK02	HVCAK02R	2038	blastx.2	hnRNP-E2 [Homo sapiens]	emb|CAA55015.1|	89% 90%	90 3	467 92
HVCAL06	HVCAL06R	2039	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	96% 30% 39%	3 302 432	308 559 554
HVCAO17	HVCAO17R	2040	blastx.2	Nm23 protein [Homo sapiens]	emb|CAA35621.1|	70%	4	531
HVCAO63	HVCAO63R	2041	blastx.2	similar to tubulin alpha-2 chain [Caenorhabditis elegans]	emb|CAA85463.1|	76% 72% 47%	82 269 342	276 322 410
HVCAP89	HVCAP89R	2042	blastx.2	CTP synthetase homolog [Mus musculus]	gb|AAB17729.1|	83% 67% 29% 80%	69 509 520 681	512 643 669 710
HVCAQ53	HVCAQ53R	2043	blastx.2	RPS16 [Homo sapiens]	gb|AAA60583.1|	100%	43	480
HVCAR87	HVCAR87R	2045	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb|AAA52496.1|	74%	54	536
HVCAS08	HVCAS08R	2046	blastx.2	triose-phosphate isomerase [Pan troglodytes]	gb|AAA35438.1|	74% 55%	77 609	796 803
HVCAS52	HVCAS52R	2047	blastx.2	proteasome subunit C8 [Homo sapiens]	dbj|BAA00659.1|	94%	1	579
HVCAU64		2049	blastx.2	23 kD highly basic	emb|CAA40254.1|	97%	57	401

	R			protein [Homo sapiens]				
HVCBD18	HVCBD18R	2050	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj|BAA91131.1|	59% 76% 90%	396 215 139	196 153 107
HVCBE76	HVCBE76R	2051	blastx.2	ribosomal protein L27 [Homo sapiens]	gb|AAA19815.1|	80%	24	431
HVCBF38	HVCBF38R	2053	blastx.2	neurofibromatosis type 1 protein [Homo sapiens]	gb|AAA74897.1|	85% 41% 71% 42% 88%	6 274 483 517 452	236 636 524 594 478
HVCBF89	HVCBF89R	2054	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	78% 70% 50%	41 666 590	325 725 679
HVCBG01	HVCBG01R	2055	blastx.2	(AF184170) elongation factor 1-alpha [Sparus aurata]	gb|AAD56406.1|AF184170_1	96% 37% 47% 40%	43 300 353 553	237 572 535 627
HVCBQ31	HVCBQ31R	2056	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	90% 53% 45% 43%	65 327 328 482	343 647 663 559
HVCCA08	HVCCA08R	2057	blastx.2	neurofibromatosis type-1-GTPase activating-protein type III [Mus musculus]	dbj|BAA06395.1|	60%	23	256
HVCCK34	HVCCK34R	2058	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	99%	94	696
HVCCV93	HVCCV93R	2060	blastx.2	AICAR formyltransferase/IMP	gb|AAA97405.1|	92% 58%	206 454	454 648

				cyclohydrolase bifunctional enzyme [Homo sapiens]		59%	564	674
HVCDD19	HVCDD19 R	2062	blastx.2	1-8U [Homo sapiens]	emb|CAA40626.1|	98%	61	459
HVCDF50	HVCDF50R	2063	blastx.2	similar to mouse Int-6 [Homo sapiens]	gb|AAB58251.1|	95% 63%	3 343	341 618
HVCDH77	HVCDH77 R	2064	blastx.2	3-methyl-adenine DNA glycosylase [Homo sapiens]	emb|CAA93540.1|	98%	2	640
HVVAB37	HVVAB37 R	2066	blastx.2	Ig mu chain C region - dog	pir|A93131|MHDG	39% 40% 39% 65% 38%	215 78 61 2 294	700 401 267 61 347
HVVAC18	HVVAC18 R	2067	blastx.2	(AF035421) glyceraldehyde 3-phosphate dehydrogenase [Ovis 1	gb|AAB88484.1|	47%	59	379
HVVAE73	HVVAE73 R	2069	blastx.2	(AJ01612) L-3-phosphoserine-phosphatase homologue [Homo sapiens]	emb|CAA04865.1|	91%	111	326
HVVAH91	HVVAH91 R	2071	blastx.2	(AL050109) hypothetical protein [Homo sapiens]	emb|CAB43277.1|	87%	54	245
HVVAI03	HVVAI03R	2072	blastx.2	ribosomal protein L31 (AA 1-125) [Homo sapiens]	emb|CAA34066.1|	98% 88% 61%	32 303 7	304 383 45

HVVAJ23	HVVAJ23R	2073	blastx.2	immunoglobulin lambda-chain [Homo sapiens]	gb|AAA02915.1|	80%	9	563
HVVAK46	HVVAK46R	2077	blastx.2	v-fos transformation effector protein [Homo sapiens]	gb|AAA58487.1|	96% 61%	3 707	746 769
HVVAK85	HVVAK85R	2079	blastx.2	unnamed protein product [unidentified]	emb|CAA03726.1|	94%	14	370
HVVAL81	HVVAL81R	2080	blastx.2	phospholipase A2 [synthetic construct]	emb|CAA01645.1|	81%	157	471
HVVAS27	HVVAS27RP00B	2082	blastx.2	ribosomal protein S17 [Homo sapiens]	gb|AAA60284.1|	99%	9	413
HVVAW26	HVVAW26R	2083	blastx.2	23 kD highly basic protein [Homo sapiens]	emb|CAA40254.1|	74% 56% 78%	7 272 447	444 601 503
HVVBD91	HVVBD91RP00B	2084	blastx.2	gamma non-muscle actin [Oryctolagus cuniculus]	emb|CAA43140.1|	99%	2	436
HVVBF09	HVVBF09R	2085	blastx.2	(AK001810) unnamed protein product [Homo sapiens]	dbj|BAA91922.1|	89%	3	206
HVVBH88	HVVBH88R	2087	blastx.2	Na,K-ATPase alpha-subunit [Homo sapiens]	dbj|BAA00061.1|	74%	1	519
HVVBI16	HVVBI16R	2088	blastx.2	IgG [Homo sapiens]	gb|AAA02914.1|	69% 92%	32 577	562 618
HVVBJ08	HVVBJ08R	2089	blastx.2	(AB014876) robosomal protein L13 [Cricetulus griseus]	dbj|BAA34291.1|	81% 96% 52%	156 40 419	479 234 601
HVVBJ55	HVVBJ55R	2090	blastx.2	ribosomal protein S17	gb|AAA60284.1|	99%	9	413

	P00B							
HVVBK13	HVVBK13R	2091	blastx.2	[Homo sapiens] (AB022653) anti-Entamoeba histolytica immunoglobulin kappa 1	dbj|BAA82102.1|	88% 62% 43%	73 633 617	618 713 733
HVVBO65	HVVBO65R	2092	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb|CAA75033.1|	68%	12	623
HVVBO88	HVVBO88R	2093	blastx.2	immunoglobulin heavy chain VH-III region [Homo sapiens]	gb|AAA98800.1|	82%	77	481
HVVBR70	HVVBR70RP00B	2094	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb|CAA40958.1|	68% 67%	20 318	334 491
HVVBT60	HVVBT60R	2096	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp|Q16465|YZA1_HUMAN	100%	448	98
HVVCB04	HVVCB04R	2098	blastx.2	heavy chain antibody 3D6 [synthetic construct]	emb|CAA01549.1|	69% 70% 30%	65 478 487	484 609 603
HVVCB08	HVVCB08R	2099	blastx.2	(AB022653) anti-Entamoeba histolytica immunoglobulin kappa 1	dbj|BAA82102.1|	76%	73	735
HVVCC06	HVVCC06R	2100	blastx.2	(AB005894) ecalectin [Homo sapiens]	dbj|BAA31542.1|	72% 85%	206 144	325 203
HVVCD81	HVVCD81R	2102	blastx.2	glutathione S-transferase-pi [Homo sapiens]	gb|AAA56823.1|	96%	80	640

HVVCD90	HVVCD90R	2104	blastx.2	type II mesothelial keratin K7 [Homo sapiens]	gb|AAA36146.1|	82%	98	748
HVVCE65	HVVCE65R	2106	blastx.2	80K-H protein [Homo sapiens]	gb|AAA52493.1|	94%	2	214
HVVCF38	HVVCF38R	2107	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb|CAA37883.1|	84%	114	467
HVVCG29	HVVCG29R	2108	blastx.2	FB19 protein [Homo sapiens]	emb|CAA73697.1|	95%	1	375
						65%	1	384
						66%	1	375
						65%	19	375
						69%	19	375
						63%	19	375
						52%	19	378
						63%	1	285
						47%	19	387
						44%	19	378
						44%	58	399
						70%	654	725
HVVCG31	HVVCG31R	2109	blastx.2	(AF061034) FIP2 [Homo sapiens]	gb|AAC16046.1|	91%	14	349
						98%	310	573
						60%	576	773
						25%	361	540
HVVCG46	HVVCG46R	2110	blastx.2	phosphoglycerate kinase (EC 2.7.2.3) [Homo sapiens]	gb|AAA60078.1|	100%	3	350
HVVCG93	HVVCG93R	2111	blastx.2	(AB021288) beta 2-microglobulin [Homo sapiens]	dbj|BAA35182.1|	100%	49	405

HVVCH28	HVVCH28R	2112	blastx.2	(AF104913) eukaryotic protein synthesis initiation factor [Homo sapiens]	gb|AAC82471.1|	100%	3	350
HVVCI28	HVVCI28R	2113	blastx.2	extracellular matrix protein BM-40 (AA 1-303) [Homo sapiens]	emb|CAA68724.1|	100%	3	119
HVVCI50	HVVCI50R	2114	blastx.2	3D6 antibody light chain [synthetic construct]	emb|CAA01550.1|	89% 79% 75%	44 382 644	403 663 739
HVVCI85	HVVCI85R	2115	blastx.2	Ig gamma chain C region - chimpanzee	pir|PT0207|PT0207	96% 80%	3 599	599 688
HVVCJ51	HVVCJ51R	2116	blastx.2	lysophosphatidic acid acyltransferase-beta [Homo sapiens]	gb|AAB58776.1|	94% 87%	1 273	261 371
HVVCK78	HVVCK78R	2118	blastx.2	Ig light chain Vl1 region [Homo sapiens]	gb|AAA2021?.1|	85% 77% 84%	27 242 298	248 307 336
HVVCL52	HVVCL52R	2119	blastx.2	NuMA protein [Homo sapiens]	emb|CAA77670.1|	99%	1	339
HVVCL73	HVVCL73R	2120	blastx.2	ribosomal protein small subunit [Homo sapiens]	gb|AAA35682.1|	100% 91%	14 674	583 775
HVVCM67	HVVCM67R	2121	blastx.2	Immunoglobulin lambda chain [Homo sapiens]	gb|AAC37563.1|	95% 78%	3 283	284 378
HVVCM84	HVVCM84R	2122	blastx.2	apoferritin H chain [Homo sapiens]	emb|CAA25086.1|	68%	3	407
HVVCN20	HVVCN20R	2123	blastx.2	Hin-2 [Homo sapiens]	gb|AAA64187.1|	89% 71%	68 4	286 87

HVVCN54	HVVCN54R	2125	blastx.2	[Human Ig rearranged gamma chain mRNA, V-J-C region and complete cds.], gene product [Homo sapiens]	gb|AAA73002.1|	70% 78%	17 17	388 337
HVVCO13	HVVCO13R	2127	blastx.2	3D6 antibody light chain [synthetic construct]	emb|CAA01550.1|	79% 48%	8 549	550 695
HVVCO16	HVVCO16R	2128	blastx.2	alpha SNAP [Homo sapiens]	gb|AAC80170.1|	96%	251	346
HVVCO87	HVVCO87R	2129	blastx.2	(AF191829) heat-shock protein [Littorina plena]	gb|AAF12788.1|AF191829_1	90% 51% 93%	30 359 457	389 469 501
HVVCP41	HVVCP41R	2130	blastx.2	(AB019120) seven transmembrane receptor [Rattus norvegicus]	dbj|BAA82518.1|	52% 54%	2 573	436 644
HVVCP88	HVVCP88R	2131	blastx.2	(AC002528) alpha2(1) collagen [Homo sapiens]	gb|AAB69977.1|	88% 50% 49% 48% 47% 48% 49% 51% 48% 47% 47% 50%	15 3 3 3 6 3 3 3 15 15 15	470 302 299 299 299 290 272 272 299 299 299 272

272	3	47%
302	3	46%
278	3	53%
272	15	48%
272	3	46%
302	18	45%
272	3	51%
314	18	45%
272	3	47%
305	3	46%
299	3	49%
299	3	45%
299	3	44%
302	3	45%
302	3	45%
272	3	48%
299	3	45%
272	27	51%
302	3	44%
272	3	49%
272	18	45%
272	3	47%
278	15	47%
272	3	48%
299	3	45%
299	18	45%
299	18	43%
272	3	47%
302	3	42%
299	3	45%

						48%	18	272
						45%	15	299
						42%	6	272
						44%	3	272
						43%	18	299
						48%	3	272
						42%	3	302
						43%	3	299
						44%	15	272
						43%	3	272
						43%	3	299
						43%	3	272
						46%	18	272
						43%	3	299
						43%	3	299
						41%	3	302
						38%	319	480
						43%	583	696
HVVCQ49	HVVCQ49R	2133	blastx.2	(AF076191) gamma-actin [Trichosurus vulpecula]	gb|AAC26520.1|	76%	54	629
HVVCQ93	HVVCQ93R	2135	blastx.2	90kDa heat shock protein [Homo sapiens]	gb|AAA36025.1|	89%	7	699
HVVCS28	HVVCS28R	2136	blastx.2	Rab5c protein [Canis familiaris]	emb|CAA81626.1|	91% 80%	183 403	293 507
HVVCS32	HVVCS32R	2137	blastx.2	(AF015283) selenoprotein W [Homo sapiens]	gb|AAB69859.1|	100%	95	217
HVVCU50	HVVCU50R	2141	blastx.2	ubiquitin-like protein [Homo sapiens]	dbj|BAA04889.1|	100%	65	307

HVVCV41	HVVCV41R	2142	blastx.2	(AB010491) natriuretic peptide A type receptor [Homo sapiens]	dbj|BAA31199.1|	100% 100% 66% 40%	2 309 283 399	292 482 309 479
HVVCW75	HVVCW75R	2144	blastx.2	(AK000419) unnamed protein product [Homo sapiens]	dbj|BAA91151.1|	100%	3	410
HVVCX46	HVVCX46R	2146	blastx.2	p48 [Homo sapiens]	gb|AAB38382.1|	54% 50% 100% 51%	71 418 354 654	712 747 431 734
HVVCY29	HVVCY29R	2147	blastx.2	immunoglobulin gamma-2 heavy chain [Homo sapiens]	emb|CAB58438.1|	97%	2	715
HVVCY55	HVVCY55R	2148	blastx.2	Hrs [Homo sapiens]	dbj|BAA23366.1|	99%	2	511
HVVCY60	HVVCY60R	2149	blastx.2	elongation factor-1 alpha-chain protein (EF-1-alpha) [Xenopus 1	gb|AAA49700.1|	86% 38% 42%	1 498 557	555 716 763
HVVCY62	HVVCY62R	2150	blastx.2	(AF113887) kappa 1 immunoglobulin light chain [Homo sapiens]	gb|AAD29608.1|	90%	3	620
HVVCY75	HVVCY75R	2151	blastx.2	ribosomal protein L34 [Rattus rattus]	emb|CAA32574.1|	96%	394	477
HVVCY77	HVVCY77R	2152	blastx.2	phospholipid transfer protein [Homo sapiens]	gb|AAA36443.1|	98%	2	598
HVVCZ18	HVVCZ18R	2153	blastx.2	UDP-GalNAc:polypeptide N-	emb|CAA63371.1|	95%	423	542

HVVDH44	HVVDH44R	2156	blastx.2	acetylgalactosaminyltransferase (GalNAc-T3) [Homo sapiens]	gb|AAC39746.1|	85%	20	562
HVVDM23	HVVDM23R	2157	blastx.2	(AF013622) immunoglobulin heavy chain variable region [Homo 1				
HVVDM23	HVVDM23R	2157	blastx.2	(AJ010446) immunoglobulin kappa light chain [Homo sapiens]	emb|CAA09185.1|	80%	81	338
						74%	308	502
						62%	541	588
HVVDM31	HVVDM31R	2158	blastx.2	adenylyl cyclase-associated protein [Homo sapiens]	gb|AAA35507.1|	98%	3	446
HVVDM45	HVVDM45R	2159	blastx.2	(AF016365) hexokinase I [Homo sapiens]	gb|AAC15863.1|	96%	66	155
HVVDN29	HVVDN29R	2162	blastx.2	ADP,ATP carrier protein T2 - human	pir|S03894|S03894	95%	8	643
						25%	29	559
						56%	615	683
HVVDN77	HVVDN77R	2163	blastx.2	Lon protease-like protein [Homo sapiens]	emb|CAA53625.1|	97%	4	594
HVVDP70	HVVDP70R	2164	blastx.2	SM22 alpha [Homo sapiens]	dbj|BAA21839.1|	92%	61	309
						39%	294	593
						48%	287	415
HVVDQ46	HVVDQ46R	2165	blastx.2	destrin [Sus scrofa]	dbj|BAA14105.1|	64%	106	513
						56%	285	485
HVVDQ49	HVVDQ49R	2166	blastx.2	calpain (EC 3.4.22.17) large chain 1 - rabbit (fragments)	pir|A24815|A24815	97%	2	103

HVVDS12	HVVDS12R	2167	blastx.2	Ig kappa chain NIG2 precursor - human	pir|JE0244|JE0244	89%	91	726
HVVDS21	HVVDS21R	2168	blastx.2	gamma subunit of CCT chaperonin [Homo sapiens]	emb|CAA52808.1|	95% 68%	74 690	727 746
HVVDS35	HVVDS35R	2169	blastx.2	hevin [Homo sapiens]	emb|CAA57650.1|	88% 67%	80 636	736 803
HVVDT29	HVVDT29R	2171	blastx.2	(AF065388) tetraspan NET-1 [Homo sapiens]	gb|AAC17119.1|	72%	121	612
HVVDT44	HVVDT44R	2172	blastx.2	ch-TOG [Homo sapiens]	emb|CAA63212.1|	98%	2	460
HVVDW02	HVVDW02R	2174	blastx.2	retinoic acid induced gene E [Homo sapiens]	emb|CAA92321.1|	79%	3	200
HVVDW61	HVVDW61R	2175	blastx.2	chimeric monoklonal TSH antibody, gamma chain [synthetic construct]	emb|CAA00676.1|	86%	2	229
HVVDX90	HVVDX90R	2177	blastx.2	(AF149822) mitotic checkpoint protein BUB3 [Mus musculus]	gb|AAD38038.1|AF149822_1	84%	23	511
HWLME48	HWLME48R	2181	blastx.2	calpain II [Sus scrofa]	gb|AAB17381.1|	95%	3	140
HWMIB35	HWMIB35R	2183	blastx.2	ZZ:beta-Gal IgG-binding fusion protein [unidentified cloning 1	gb|AAB00807.1|	96%	49	219

1714

HWWEF9 0	HWWEF90 R	2185	blastx.2	(AL035461) dJ967N21.3 (novel protein similar to predicted 1	.emb|CAB55274.1|	95%	61	300

[0048]   Table 2   further characterizes certain encoded polypeptides of the invention, by providing the results of comparisons to protein and protein family databases. The first column provides a unique clone identifier, "Clone ID NO:", corresponding to a cDNA clone disclosed in Table 1.   The second column provides the unique contig indentifier, "Contig ID:" which allows correlation with the information in Table 1.   The third column provides the sequence identifier, "SEQ ID NO:X", for the contig polynucleotide sequences. The fourth column provides the analysis method by which the homology/identity disclosed in the row was determined.   The fifth column provides a description of PFam/NR hits having significant matches identified by each analysis. Column six provides the accession number of the PFam/NR hit disclosed in the fifth column. Column seven, "Score/Percent Identity", provides a quality score or the percent identity, of the hit disclosed in column five. Comparisons were made between polypeptides encoded by polynucleotides of the invention and a non-redundant protein database (herein referred to as "NR"), or a database of protein families (herein referred to as "PFam"), as described below.

[0049]   The NR database, which comprises the NBRF PIR database, the NCBI GenPept database, and the SIB SwissProt and TrEMBL databases, was made non-redundant using the computer program nrdb2 (Warren Gish, Washington University in Saint Louis). Each of the polynucleotides shown in Table 1, column 3 (e.g., SEQ ID NO:X or the 'Query' sequence) was used to search against the NR database. The computer program BLASTX was used to compare a 6-frame translation of the Query sequence to the NR database (for information about the BLASTX algorithm please see Altshul et al., J. Mol. Biol. 215:403-410 (1990), and Gish et al., Nat. Genet. 3:266-272 (1993)). A description of the sequence that is most similar to the Query sequence (the highest scoring 'Subject') is shown in column five of Table 2 and the database accession number for that sequence is provided in column six. The highest scoring 'Subject' is reported in Table 2 if (a) the estimated probability that the match occurred by chance alone is less than 1.0e-07, and (b) the match was not to a known repetitive element. BLASTX returns alignments of short polypeptide segments of the Query and Subject sequences which share a high degree of similarity; these segments are known as High-Scoring Segment Pairs or HSPs. Table 2 reports the degree of similarity between the Query and the Subject for each HSP as a

percent identity in Column 7. The percent identity is determined by dividing the number of exact matches between the two aligned sequences in the HSP, dividing by the number of Query amino acids in the HSP and multiplying by 100. The polynucleotides of SEQ ID NO:X which encode the polypeptide sequence that generates an HSP are delineated by columns 8 and 9 of Table 2.

[0050]   The PFam database, PFam version 5.2, (Sonnhammer et al., Nucl. Acids Res., 26:320-322, (1998)) consists of a series of multiple sequence alignments; one alignment for each protein family. Each multiple sequence alignment is converted into a probability model called a Hidden Markov Model, or HMM, that represents the position-specific variation among the sequences that make up the multiple sequence alignment (see, e.g., R. Durbin et al., *Biological sequence analysis: probabilistic models of proteins and nucleic acids*, Cambridge University Press, 1998 for the theory of HMMs). The program HMMER version 1.8 (Sean Eddy, Washington University in Saint Louis) was used to compare the predicted protein sequence for each Query sequence (SEQ ID NO:Y in Table 1) to each of the HMMs derived from PFam version 5.2. A HMM derived from PFam version 5.2 was said to be a significant match to a polypeptide of the invention if the score returned by HMMER 1.8 was greater than 0.8 times the HMMER 1.8 score obtained with the most distantly related known member of that protein family. The description of the PFam family which shares a significant match with a polypeptide of the invention is listed in column 5 of Table 2, and the database accession number of the PFam hit is provided in column 6. Column 7 provides the score returned by HMMER version 1.8 for the alignment. Columns 8 and 9 delineate the polynucleotides of SEQ ID NO:X which encode the polypeptide sequence which shows a significant match to a PFam protein family.

[0051]   As mentioned, columns 8 and 9 in Table 2, "NT From" and "NT To", delineate the polynucleotides of "SEQ ID NO:X" that encode a polypeptide having a significant match to the PFam/NR database as disclosed in the fifth column of Table 2. In one embodiment, the invention provides a protein comprising, or alternatively consisting of, a polypeptide encoded by the polynucleotides of SEQ ID NO:X delineated in columns 8 and 9 of Table 2. Also provided are polynucleotides encoding such proteins, and the complementary strand thereto.

[0052]   The nucleotide sequence SEQ ID NO:X and the translated SEQ ID NO:Y
are sufficiently accurate and otherwise suitable for a variety of uses well known in the art
and described further below. For instance, the nucleotide sequences of SEQ ID NO:X are
useful for designing nucleic acid hybridization probes that. will detect nucleic acid
sequences contained in SEQ ID NO:X or the cDNA contained in Clone ID NO:Z. These
probes will also hybridize to nucleic acid molecules' in biological samples, thereby
enabling immediate applications in chromosome mapping, linkage analysis, tissue
identification and/or typing, and a variety of forensic and diagnostic methods of the
invention. Similarly, polypeptides identified from SEQ ID NO:Y may be used to generate
antibodies which bind specifically to these polypeptides, or fragments thereof, and/or to
the polypeptides encoded by the cDNA clones identified in, for example, Table 1.

[0053]   Nevertheless, DNA sequences generated by sequencing reactions can
contain sequencing errors. The errors exist as misidentified nucleotides, or as insertions or
deletions of nucleotides in the generated DNA sequence. The erroneously inserted or
deleted nucleotides cause frame shifts in the reading frames of the predicted amino acid
sequence. .In these cases, the predicted amino acid sequence diverges from the actual
amino acid sequence, even though the generated DNA sequence may be greater than
99.9% identical to the actual DNA sequence (for example, one base insertion or deletion
in an open reading frame of over 1000 bases).

[0054]   Accordingly, for those applications requiring precision in the nucleotide
sequence or the amino acid sequence, the present invention provides not only the
generated nucleotide sequence identified as SEQ ID NO:X, and a predicted translated
amino acid sequence identified as SEQ ID NO:Y, but also a sample of plasmid DNA
containing cDNA Clone ID NO:Z (deposited with the ATCC on June 5, 2000 and were
given ATCC Deposit Nos. PTA-1982 and PTA-1985; and/or as set forth, for example, in
Table 1, 6 and 7). The nucleotide sequence of each deposited clone can readily be
determined by sequencing the deposited clone in accordance with known methods.
Further, techniques known in the art can be used to verify the nucleotide sequences of
SEQ ID NO:X.niques known in the art can be used to verify the nucleotide sequences of
SEQ ID NO:X.

[0055]   The predicted amino acid sequence can then be verified from such deposits. Moreover, the amino acid sequence of the protein encoded by a particular clone can also be directly determined by peptide sequencing or by expressing the protein in a suitable host cell containing the deposited human cDNA, collecting the protein, and determining its sequence.

RACE Protocol For Recovery of Full-Length Genes

[0056]   Partial cDNA clones can be made full-length by utilizing the rapid amplification of cDNA ends (RACE) procedure described in Frohman, M.A., et al., Proc. Nat'l. Acad. Sci. USA, 85:8998-9002 (1988). A cDNA clone missing either the 5' or 3' end can be reconstructed to include the absent base pairs extending to the translational start or stop codon, respectively. In some cases, cDNAs are missing the start codon of translation. The following briefly describes a modification of this original 5' RACE procedure. Poly A+ or total RNA is reverse transcribed with Superscript II (Gibco/BRL) and an antisense or complementary primer specific to the cDNA sequence. The primer is removed from the reaction with a Microcon Concentrator (Amicon). The first-strand cDNA is then tailed with dATP and terminal deoxynucleotide transferase (Gibco/BRL). Thus, an anchor sequence is produced which is needed for PCR amplification. The second strand is synthesized from the dA-tail in PCR buffer, Taq DNA polymerase (Perkin-Elmer Cetus), an oligo-dT primer containing three adjacent restriction sites (XhoI, SalI and ClaI) at the 5' end and a primer containing just these restriction sites. This double-stranded cDNA is PCR amplified for 40 cycles with the same primers as well as a nested cDNA-specific antisense primer. The PCR products are size-separated on an ethidium bromide-agarose gel and the region of gel containing cDNA products the predicted size of missing protein-coding DNA is removed. cDNA is purified from the - agarose with the Magic PCR Prep kit (Promega), restriction digested with XhoI or SalI, and ligated to a plasmid such as pBluescript SKII (Stratagene) at XhoI and EcoRV sites. This DNA is transformed into bacteria and the plasmid clones sequenced to identify the correct protein-coding inserts. Correct 5' ends are confirmed by comparing this sequence with the putatively identified homologue and overlap with the partial cDNA clone. Similar methods known in the art and/or commercial kits are used to amplify and recover 3' ends.

[0057]   Several quality-controlled kits are commercially available for purchase. Similar reagents and methods to those above are supplied in kit form from Gibco/BRL for both 5' and 3' RACE for recovery of full length genes. A second kit is available from Clontech which is a modification of a related technique, SLIC (single-stranded ligation to single-stranded cDNA), developed by Dumas et al., Nucleic Acids Res., 19:5227-32 (1991). The major differences in procedure are that the RNA is alkaline hydrolyzed after - reverse transcription and RNA ligase is used to join a restriction site-containing anchor primer to the first-strand cDNA. This obviates the necessity for the dA-tailing reaction which results in a polyT stretch that is difficult to sequence past.

[0058]   An alternative to generating 5' or 3' cDNA from RNA is to use cDNA library double-stranded DNA. An asymmetric PCR-amplified antisense cDNA strand is synthesized with an antisense cDNA-specific primer and a plasmid-anchored primer. These primers are removed and a symmetric PCR reaction is performed with a nested · cDNA-specific antisense primer and the plasmid-anchored primer.

RNA Ligase Protocol For Generating The 5' or 3' End Sequences To Obtain Full Length Genes

[0059]   Once a gene of interest is identified, several methods are available for the identification of the 5' or 3' portions of the gene which may not be present in the original cDNA plasmid. These methods include, but are not limited to, filter probing, clone enrichment using specific probes and protocols similar and identical to 5' and 3' RACE. While the full length gene may be present in the library and can be identified by probing, a useful method for generating the 5' or 3' end is to use the existing sequence information from the original cDNA to generate the missing information. A method similar to 5' RACE is available for generating the missing 5' end of a desired full-length gene. (This method was published by Fromont-Racine et al., Nucleic Acids Res., 21(7):1683-1684 (1993)). Briefly, a specific RNA oligonucleotide is ligated to the 5' ends of a population of RNA presumably containing full-length gene RNA transcript. A primer set containing a primer specific to the ligated RNA oligonucleotide and a primer specific to a known sequence of the gene of interest, is used to PCR amplify the 5' portion of the desired full length gene which may then be sequenced and used to generate the full length gene. This

method starts with total RNA isolated from the desired source, poly A RNA may be used but is not a prerequisite for this procedure. The RNA preparation may then be treated with phosphatase if necessary to eliminate 5' phosphate groups on degraded or damaged RNA which may interfere with the later RNA ligase step. The phosphatase if used is then inactivated and the RNA is treated with tobacco acid pyrophosphatase in order to remove the cap structure present at the 5' ends of messenger RNAs. This reaction leaves a 5' phosphate group at the 5' end of the cap cleaved RNA which can then be ligated to an RNA oligonucleotide using T4 RNA ligase. This modified RNA preparation can then be used as a template for first strand cDNA synthesis using a gene specific oligonucleotide. The first strand synthesis reaction can then be used as a template for PCR amplification of the desired 5' end using a primer specific to the ligated RNA oligonucleotide and a primer specific to the known sequence of the ovarian antigen of interest. The resultant product is then sequenced and analyzed to confirm that the 5' end sequence belongs to the relevant ovarian antigen.

[0060]   The present invention also relates to vectors or plasmids, which include such DNA sequences, as well as the use of the DNA sequences. The material deposited with the ATCC (deposited with the ATCC on June 5, 2000 and were given ATCC Deposit Nos. PTA-1982 and PTA-1985; and/or as set forth, for example, in Table 1, 6 and 7) is a mixture of cDNA clones derived from a variety of human tissue and cloned in either a plasmid vector or a phage vector, as shown, for example, in Table 7. These deposits are referred to as "the deposits" herein. The tissues from which some of the clones were derived are listed in Table 7, and the vector in which the corresponding cDNA is contained is also indicated in Table 7. The deposited material includes cDNA clones corresponding to SEQ ID NO:X described, for example, in Table 1 (Clone ID NO:Z). A clone which is isolatable from the ATCC Deposits by use of a sequence listed as SEQ ID NO:X, may include the entire coding region of a human gene or in other cases such clone may include a substantial portion of the coding region of a human gene. Furthermore, although the sequence listing may in some instances list only a portion of the DNA sequence in a clone included in the ATCC Deposits, it is well within the ability of one skilled in the art to sequence the DNA included in a clone contained in the ATCC Deposits by use of a sequence (or portion thereof) described in, for example Tables 1A or

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2 by procedures hereinafter further described, and others apparent to those skilled in the art.

[0061]   Also provided in Table 7 is the name of the vector which contains the cDNA clone.   Each vector is routinely used in the art.   The following additional information is provided for convenience.

[0062]   Vectors Lambda Zap (U.S. Patent Nos. 5,128,256 and 5,286,636), Uni-Zap XR (U.S. Patent Nos. 5,128,256 and 5,286,636), Zap Express (U.S. Patent Nos. 5,128,256 and 5,286,636), pBluescript (pBS) (Short, J. M. et al., *Nucleic Acids Res. 16:*7583-7600 (1988); Alting-Mees, M. A. and Short, J. M., *Nucleic Acids Res. 17:*9494 (1989)) and pBK (Alting-Mees, M. A. et al., *Strategies 5:*58-61 (1992)) are commercially available from Stratagene Cloning Systems, Inc., 11011 N. Torrey Pines Road, La Jolla, CA, 92037. pBS contains an ampicillin resistance gene and pBK contains a neomycin resistance gene. Phagemid pBS may be excised from the Lambda Zap and Uni-Zap XR vectors, and phagemid pBK may be excised from the Zap Express vector. Both phagemids may be transformed into *E. coli* strain XL-1 Blue, also available from Stratagene.

[0063]   Vectors pSport1, pCMVSport 1.0, pCMVSport 2.0 and pCMVSport 3.0, were obtained from Life Technologies, Inc., P. O. Box 6009, Gaithersburg, MD 20897. All Sport vectors contain an ampicillin resistance gene and may be transformed into *E. coli* strain DH10B, also available from Life Technologies. See, for instance, Gruber, C. E., et al., *Focus 15:*59- (1993). Vector lafmid BA (Bento Soares, Columbia University, New York, NY) contains an ampicillin resistance gene and can be transformed into *E. coli* strain XL-1 Blue. Vector pCR®2.1, which is available from Invitrogen, 1600 Faraday Avenue, Carlsbad, CA   92008, contains an ampicillin resistance gene and may be transformed into *E. coli* strain DH10B, available from Life Technologies. See, for instance, Clark, J. M., Nuc. Acids Res. 16:9677-9686 (1988) and Mead, D. et al., Bio/Technology 9: (1991).

[0064]   The present invention also relates to the genes corresponding to SEQ ID NO:X, SEQ ID NO:Y, and/or the deposited clone (Clone ID NO:Z). The corresponding gene can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include preparing probes or primers from the disclosed

sequence and identifying or amplifying the corresponding gene from appropriate sources of genomic material.

[0065]   Also provided in the present invention are allelic variants, orthologs, and/or species homologs. Procedures known in the art can be used to obtain full-length genes, allelic variants, splice variants, full-length coding portions, orthologs, and/or species homologs of ovarian associated genes corresponding to SEQ ID NO:X or the complement thereof, polypeptides encoded by SEQ ID NO:X or the complement thereof, and/or the cDNA contained in Clone ID NO:Z, using information from the sequences disclosed herein or the clones deposited with the ATCC. For example, allelic variants and/or species homologs may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source for allelic variants and/or the desired homologue.

[0066]   The polypeptides of the invention can be prepared in any suitable manner. Such polypeptides include isolated naturally occurring polypeptides, recombinantly produced polypeptides, synthetically produced polypeptides, or polypeptides produced by a combination of these methods. Means for preparing such polypeptides are well understood in the art.

[0067]   The polypeptides may be in the form of the secreted protein, including the mature form, or may be a part of a larger protein, such as a fusion protein (see below). It is often advantageous to include an additional amino acid sequence which contains secretory or leader sequences, pro-sequences, sequences which aid in purification, such as multiple histidine residues, or an additional sequence for stability during recombinant production.

[0068]   The polypeptides of the present invention are preferably provided in an isolated form, and preferably are substantially purified. A recombinantly produced version of a polypeptide, including the secreted polypeptide, can be substantially purified using techniques described herein or otherwise known in the art, such as, for example, by the one-step method described in Smith and Johnson, Gene 67:31-40 (1988). Polypeptides of the invention also can be purified from natural, synthetic or recombinant sources using techniques described herein or otherwise known in the art, such as, for

example, antibodies of the invention raised against the ovarian polypeptides of the present invention in methods which are well known in the art.

[0069]   The present invention provides a polynucleotide comprising, or alternatively consisting of, the nucleic acid sequence of SEQ ID NO:X, and/or the cDNA sequence contained in Clone ID NO:Z. The present invention also provides a polypeptide comprising, or alternatively, consisting of, the polypeptide sequence of SEQ ID NO:Y, a polypeptide encoded by SEQ ID NO:X or a complement thereof, and/or a polypeptide encoded by the cDNA contained in Clone ID NO:Z. Polynucleotides encoding a polypeptide comprising, or alternatively consisting of the polypeptide sequence of SEQ ID NO:Y, a polypeptide encoded by SEQ ID NO:X, and/or a polypeptide encoded by the cDNA contained in Clone ID NO:Z are also encompassed by the invention. The present invention further encompasses a polynucleotide comprising, or alternatively consisting of, the complement of the nucleic acid sequence of SEQ ID NO:X, a nucleic acid sequence encoding a polypeptide encoded by the complement of the nucleic acid sequence of SEQ ID NO:X, and/or the cDNA contained in Clone ID NO:Z.

[0070]   Many polynucleotide sequences, such as EST sequences, are publicly available and accessible through sequence databases and may have been publicly available prior to conception of the present invention. Preferably, such related polynucleotides are specifically excluded from the scope of the present invention. Accordingly, for each contig sequence (SEQ ID NO:X) listed in the third column of Table 1, preferably excluded are one or more polynucleotides comprising a nucleotide sequence described by the general formula of a-b, where a is any integer between 1 and the final nucleotide minus 15 of SEQ ID NO:X, b is an integer of 15 to the final nucleotide of SEQ ID NO:X, where both a and b correspond to the positions of nucleotide residues shown in SEQ ID NO:X, and where b is greater than or equal to a + 14. More specifically, preferably excluded are one or more polynucleotides comprising a nucleotide sequence described by the general formula of a-b, where a and b are integers as defined in columns 4 and 5, respectively, of Table 3. In specific embodiments, the polynucleotides of the invention do not consist of at least one, two, three, four, five, ten, or more of the specific polynucleotide sequences referenced by the Genbank Accession No. as disclosed in column 6 of Table 3. In further embodiments, preferably excluded from the invention are the specific polynucleotide

sequence(s) contained in the clones corresponding to at least one, two, three, four, five, ten, or more of the available material having the accession numbers identified in the sixth column of this Table. In no way is this listing meant to encompass all of the sequences which may be excluded by the general formula, it is just a representative example. All references available through these accessions are hereby incorporated by reference in their entirety.

TABLE 3

Clone ID NO:Z	SEQ ID NO:X	Contig ID:	EST Disclaimer Range of a	Range of b	Accession #'s
HOVCD34	11	396327	1 - 314	15 - 328	BF032064, T40388, BG223493, AI917132, BF526832, AI554435, H86931, AC007262, AC026722, Z98742, AP000115, AL121969, AL159996, AP001717, AL353771, AL354674, AL353802, AL031846, AP000308, AL139343, Z97629, AC010135, AL049832, AP000048, AL020995, AC011292, AC007955, AL356103, AC004938, AC002492, AC068811, AC023511, AL008721, AC011749, AL024473, AC006354, AC002351, Z93015, AC007172, AC005230, AL139342, AF165926, AL121902, AC007025, AC005181, AL158841, AC011742, AL163201, AC009024, AC008269, AL139277, AC007964, AC007938, AF205588, AL139185, AC006478, AC007784, AL034395, AL136000, AC007344, AC010731, AL122013, AC002288, AL359751, AL121721, AC066590, AL139232, AC024164, AL031662, AC007358, AC009481, AL050335, AL033533, AC010789, AC009498, AC007850, AL020998, AC018684, AL034451, AL135783, AC008066, AC005030, AL049562, AL138706, Z95125, AC007461, AC011475, AL117337, AL117694, AL121915, AL049776, AL078596, AL035089, AL096764, AL049563, AC002553, AL035067, AC007458, AC018642, AC005550, Z99496, Z98036, Z99291, AC003119, AC007446, AC020751, AC068314, AC003035, X87344, AC066598, AC073175, AL139351, AC012156, AC006314, AC010582, AC018832, AC006142, AL139353, and AL163247.
HEBGD58	12	498281	1 - 340	15 - 354	BG253988, BF508504, AA187211, H44280, BG251021, AA431830, AW962811, AA355921, H06638, BG259131, AV729233, BG119160, BG027014, T48526, AW298232, and AL138828.
HETCD42	13	533532	1 - 2333	15 - 2347	AL079360, AU137870, AU139146, BG260515, AV714769, AU137391, BF984453, AV713475, AV757390, AU138193, BF981793, AV713896, BE886752, BE889586, AW863749, BE882133, BF984505, BF983192, BG033275, BE537808, AU138496, BF978549, BF791293, AV758458, BF978970, BE897839, BE891773, BG028552, AV756779, BF348380, BE544852, BG180994, AU138423, BE783926, BE790149, AV647651, BG180514, BE886542, BF669771, AW950287, BG030964, AU133929, BF540824, BF672669, AI308837, BE882289, BF244654, BF666694, AV647698, BG169993, BF790368, AV723145, AV732863, AA122236, AV647695, AV715522, AV685920, BF028308, AV647569, BF105115, BE892120, BF695056, BF669431, BF436129, BE543091, AW363937, BF667030, AI740603, BE568179, AV715544, AI698125, AI678683, BE748490, AW299845, BG009598, AI766040, BF036918, AA911996, BF790701, AI740699, BF129905, BF695828, BE748787, BF694681, BE049332, BE501459, BF791119, BF242503, BF240540, AI566017, BE739216, AI862778, BF103607, BF383055, BF089920, BF383113, BF574696, AW439230, BF028165, AI992130, BF029869, BF214255, AA083269, BF692328,

| HTXKC18 | 14 | 535854 | 1 - 864 | 15 - 878 | BF028909, BF028950, N31326, BF670821, BF211706, BF701480, BF670811, BE866031, AI917193, AI570519, BE568353, AI095016, BF130290, BF245935, AA731991, BE789179, BE018220, BE789659, AV706901, BE873916, AI784504, AU157511, AU157154, AA807683, BF214737, BE866674, AA521441, BF697291, AI097040, AA159802, AU155086, BF576547, BF001380, AA577000, BF576765, AI421580, BE042461, AA315644, BF241476, BG165531, AI954071, AI949499, BF001429, BG178240, AI088027, BF693411, BE866506, BF243338, BF238642, BF213391, BF693271, AI590159, BE564554, AI870962, AA291279, BF696346, AI683299, AA452797, BF691651, BF697614, BF574483, AI335173, BF574392, AI922454, BE878946, AA613953, BE301705, W46431, AI983758, BE138832, BF381737, BE568565, BF126639, N21374, BF793733, AV757543, BE175751, BF211165, BF693918, BF383115, BF577927, AA083228, AA626504, BE568752, BF993159, BF248184, AI274752, AV647219, AW514125, AI580851, AI302371, AV758280, W52465, AW339075, AW627843, AW589504, AA729798, AA165015, AI301712, BF923406, BG025081, AI095888, BF132421, BE865839, H12391, AW193393, BG113656, AI750428, N35068, AW628469, BF381687, AA018858, AI537545, AI539228, AV647526, BE739676, BF244248, N43807, AI355889, BF219513, AW305167, AA248634, BF670216, BF208900, D58212, BF576833, BE567828, AV692522, AW316752, AV763220, AA249298, BF221484, BE247748, BF336472, BE567395, AV704009, BF336476, AC002543, U03851, U03269, U16741, M80589, and M25534. AA547979, AI085242, BG029528, BF725761, BE162539, AI801505, AI358712, BF804385, AI369580, AL037714, AL079734, BE062478, AA483256, BF811714, BF681619, BF804359, BG180976, BE178231, AV760941, BE252421, AW021116, AI439372, AA594157, AV758870, AW819125, AL043351, BE062476, AA643770, AI583252, AI923052, BE178064, AI440117, AV760391, AL038606, AV741663, AA528503, AW855643, BE301584, AA528496, AW069227, AW969941, AW833865, AI380617, AA579419, AV760014, BF868994, AI612142, BF842771, AV760389, AI251576, AW023111, AL037683, AW827182, AL040038, AW237905, BE677029, AI491765, AL042373, AI499298, AI421755, AW020150, AI174876, AI821467, AA469327, AI612070, BF244530, AW855528, BE063437, AW779609, AI583466, AA812058, BF821009, AV763276, AV726091, BF821897, BG152386, AI611533, AI565084, AA832016, AA828047, AA857812, AI275982, AI610941, BE150580, AI299882, AV760915, AI301373, AA838091, AI457389, T74524, AL121655, AC005520, AC006312, AL356379, AC008569, AL024498, AC007546, AC020904, AC018758, AL158040, AC005911, AC024082, AL109804, AC007637, AC005940, AC004089, AP001435, AC011449, AL096840, AC005102, AC004867, AC021016, AL121586, AL034548, AC004967, AC005736, AC005480, AC008403, AC003684, AC009516, AC020916, U91321, AC005755, AL136137, AP000704, AL050318, AC005531, AF168787, AC002350, AC005387, AC005952, AC010271, AC007731, AC005412, AC020552, AC002312, AC008753, AL034379, AL121653, AC005197, AL157838, AC008551, AL138787, AC018720, AL355385, AC006597, |

HLDRK20	15	553765	1 - 1300	15 - 1314	AL138878, AC024075, Z93015, AC005071, AC011491, AC005015, AC005500, AC021999, AC018755, AC008482, Z85996, AP001717, AC005684, AP000088, AC005225, AL022163, AL117258, AC004084, U80017, AL031659, AC011455, AF243527, AC004752, AC003109, AF053356, AC011514, AC005081, AL022323, AC020906, AC025430, AP000553, AP000558, AC004895, AP000503, AP001694, AP001725, AL035249, AC009123, AC000025, AC002316, AC004841, AC000353, AL161670, AC005274, AL136418, AL023807, AP001711, Y10196, AL162615, AL121658, L44140, AC005089, AC020663, AC004887, AC010618, AC002477, AC005082, U95740, AC005839, AL136295, AC011495, AC010458, AC008745, AC009032, AC005031, AP000501, AF109907, AC004878, AL157938, AL353748, AL109627, AP001726, AL137073, AL133355, AC020754, AC011450, AC006014, AL139353, AC005231, AL109935, AL121845, AF001549, AC006330, AC011484, AC002565, AL138706, AC009079, AC004475, AC006571, AC007384, AL031680, AC011497, AC005488, AC007308, AC004166, AF030453, AC007383, AL445248, AC004673, AL138976, AP000045, AD000092, AL079342, AC006483, AC002073, AC011489, AL109797, AL136304, AL023553, AC006344, AL121652, AC007739, AC010463, AC008055, AC007679, AL136300, AC005484, AP000692, AC007242, AC005098, AC010605, AL109930, AP000557, AC011480, AC005778, AL049840, AC009756, AL035681, AC005011, AC002400, AL135744, AC004019, AC005103, AC011442, AC008537, AC002476, AC002470, AC003101, AL121675, U62293, Z83844, AL138756, AC010553, AC005057, AC006064, AC006616, AL080243, AF001548, AL133353, AC006241, AP001630, AC008812, AC006057, AL078461, Z95115, AL117377, AL139289, AC004601, AX039602, AC005080, AC005837, AC007537, AC002425, Z83822, AC004150, AC004815, AL034417, AC006388, AC008474, AC005037, AC008395, AL132987, AL050335, AC005236, AC002492, AC004477, AL035072, AL135787, AP000113, AF047825, AL137222, AL031666, AL034420, U47924, AC004890, AC011895, AL133448, and AL008719. AL531625, BE249834, BE249869, AU133584, AU133954, BE293561, AV692312, AW957051, BE293519, AU135103, AA399208, AW176043, AV690099, AI904273, T60502, BF374345, AV655442, AW804571, AW804603, T70509, AV688378, H47199, H93928, AV694565, AV694238, T68223, T68956, T68126, T68045, AA337893, T69698, AW804991, AW804996, T68924, AW372297, T72305, AV696946, AV696947, AI301941, AA344625, T71155, T72771, T56196, T73042, BF992875, AI133687, BE392020, AV693194, BF848482, AW104835, BF369544, T74806, AI363265, T68644, T60607, AA779168, T68483, T67851, AV647855, T73703, AI266591, AR034619, S67310, L15702, X72875, AX014918, AF019413, X00284, K01566, M15082, and M59240.
H2MBD33	16	558474	1 - 425	15 - 439	AW957931, AW957932, AA308306, AI633677, BE538201, BE044997, AW856247, BF061419, BE787771, AW874580, AA503529, AW117709, AI613324, AI561159, AI732205, AA133693, AA747898, AU160258, ZI9706, AA405171, AU156212, BG231867, AI498698, AA579013, U88573, A75315, AC016816, X87344, AC000117, AC004506, AC004522, AC004899,

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HSYBX61	17	558708	1 - 1094	15 - 1108	AI950214, AI074445, BG114649, BF666951, AV705261, AI050761, BF215604, BF700368, AW665220, BF247160, BE958106, BF668544, AW901579, AA863199, BG105211, AW901581, AA933061, BF691307, BF081566, AU153641, W48793, BE701906, AW901558, BF363888, W49619, AA757163, AI127140, BF363884, BE812771, AW901562, AA406401, AU127328, AU120201, AW901572, BE701904, AV694302, AW901560, AW951188, BE938964, W24640, BE701884, AI207705, AW360819, AL041311, AW360785, T29223, AI765920, BF382797, AA747483, AW136630, N83358, R38385, AW900970, BF970590, BF885816, AW899304, N87392, AA693316, N89144, AI675151, AW900934, BF529885, BE767210, AI754509, BE464612, BG167754, M34064, X57548, X53615, S42303, AB017695, AB008811, M31131, AF097593, X07277, S45013, X54315, S45011, AF177682, Z27439, Z27440, and Z27441.
HELHC03	18 ·	562745	1 - 1161	15 - 1175	BE262771, AI024014, H91016, H90904, AV695478, BE138594, AL036909, AI560085, AI537397, AI630283, AA744018, AV756491, AL038842, T74524, AW023302, AI888468, AI076236, AA181917, AA468022, AI678867, BE147833, AW965008, AC005048, AC005726, AC006050, AL139182, AL121893, AC005829, AL078591, U91323, Z84469, AL162615, AF196969, AC006337, AC011470, AL031777, AC005102, AL135901, Z93241, AC007934, AC005670, AC007263, AL353804, AC004895, AC004963, AL121891, AL050349, AC004906, AC000025, AC004983, AL117382, AC006011, AL034422, AP000563, AL354896, AL139099, AC008760, AB003151, AL157789, AC003070, AL049872, AC005412, AL162430, AC005859, AP000558, AP000065, AC011500, AL050332, AC011479, AC018738, AC005527, AL158141, AC009516, AP001711, AC005529, AL356354, AC011455, AL008635, AL133417, Z95114, AL135744, AC002115, AC002546, AC005080, AC007216, AC018751, AF053356, AC002312, Z97985, AC007785, AC004634, AP000501, AC010553, AL049780, AC005052, AL138807, AC005482, AC002550, AC005236, AL049795, AC010553, AL049780, AC007055, AC036103, AC002425, AP000313, AF111168, AC005081, AC011442, AL445248, AC007055, AC006552, AL133228, AC005840, AL137060, AL109743, AF082219, AC002091, AC010201, AC007130, AL118520, AC006483, AP000133, AC010422, AC009399, AL050318, AC002301, AC007201, AC004916, AF109907, AF168787, AC006071, AL031575, AC011475, AC011523, AC007201, AL133548, AC011495, Z94801, Z98884, AC002404, AL365212, AC004694, AC027319, AL133548, AC004858, AL136298, AC018719, AL138893, AC011527, AC002395, AC008085, AP000194, AC004858, AL389886, AC005409, AC008770, Z94056, AP000350, AC002369, AC011592, AL356750, AL389886, AL031846, AL162424, AC083874, AC055755, AC004031, AL133153, AL132653, AC015651, AL031846, AL162424, AC083874, AC055755, AC004031, AC016831, AP001714, AC005015, AC007465, AP000555, AP000537, U91326, AC020947, AC020908,

HOFMP70	19	585385	1 - 333	15 - 347	AC005625, AP000553, AF001549, AP000290, AL139353, AL158198, AL109758, AC003684, AC007388, AL022067, AP000211, AC010326, AC005104, AC005666, Z95116, AF002223, AC005324, AC003957, AL079335, AL355392, AL360227, AL122001, AC004150, AC008474, AC011895, AC007066, AC004675, AC006211, AL031681, AL109614, AP000117, AC005088, AC005622, AC011462, AC006141, AC005020, AL133415, AL049697, AL138752, U51244, U95742, AC006146, AC004707, AC008518, and AP001726. AU129119, AU132116, AU122873, BF985587, BE880467, AU134725, BF763276, AU127421, BF986272, BF752117, BF679945, AU131326, AU139214, AA314523, AA852641, AU129752, AA307371, BF696550, AU130590, AU118964, BG178180, AU131491, BF669193, AU136184, BF985661, BE410823, T68678, BF749656, AW239136, AA242999, BE620262, BF698331, AA375736, BE782468, BF965316, BF327652, BE876259, BE875957, BE796542, BE620043, BE389731, BE790649, T07406, BF570489, BE785080, BE745306, BF681401, AW579861, BF985501, AU128901, BE156508, AL036766, AU128389, AA375047, BF107335, BF985580, BG171811, T71831, BF985602, BF903411, T71811, AA362982, AV750113, AA092055, BE732006, BE731395, AU127766, BE156632, BE733317, BF273157, BF733809, AL044046, AW455795, BF107170, BF752590, AW363271, U01153, X15187, AK025459, X90848, Y09136, X76301, S74939, M26596, M33716, and AR032000.
HSKN225	20	585675	1 - 674	15 - 688	AI423388, AA705880, BF525904, AA349525, AA488891, AA836122, BF348027, AA465431, AI310146, AI302088, AA584447, AW968376, N46920, AI986100, BF753058, BE160619, AI077517, AL040766, AA890243, BE244498, AA325569, BE160856, AA771925, AA489237, AA126066, AV655598, AW372110, AW137313, AL039325, BF959941, AA046254, AW136539, BE072182, AA465360, AA917759, AW962078, AW816387, BE935535, AA573136, AW517075, BF903430, R45086, AW797195, AI368519, AA078308, AI022603, AI354688, BF761820, AI565643, AA810621, W87764, AW852367, BE149694, AV653343, BG010915, BF989770, BF762909, BF834278, BF897554, BF929290, AW861486, AI052645, AA280250, BF857730, BF857711, AW857610, AW857593, BE729724, AL118895, AW857604, AW938518, BE142184, BG105313, AA077547, AA577804, AA496279, BE089188, BE142866, BE161095, AW888812, AW857605, AW945790, BF750582, BF813834, AI651771, BE089952, AW898784, AW845700, BE393138, AW902136, AW845696, BF953515, AL024458, AC005562, AC007204, AL031228, AL035246, AC012309, AC010632, AC003975, AC011460, AC007275, AC008821, AL445249, D28126, AC009489, AL122001, AC003682, AL121905, AC008537, AL136317, AL139277, AL022318, AC078899, AC002301, AL360088, AP000346, AC022137, AL033526, AC068948, AL133162, AL121985, AC006504, AC019173, AL132656, AC006462, AL365505, AL031775, AP000431, AP001675, AC022148, AL161802, AL121932, AC006642, AL035458, AL078614, AP001464, AC004976, AL109943, AC022596, AP000498, AL163202, AB026898, AL137070, AC008554, AL136419, AC010889, AC002049,

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HDPFK39	21	588869	1 - 736	15 - 750	BF892783, BF894772, BE243071, BF892143, BF892796, BF899235, M18044, J03925, J04145, AF268593, S52159, S52157, S52153, S52154, S52152, S52161, I19138, M76724, S52155, M82856, and U59801.
HL1AB07	22	638220	1 - 870	15 - 884	AW410018, AI956068, AI140111, BE902158, BE410544, BE559955, AW009487, AW006443, BF237868, AV714206, AI301924, AI494409, AV717288, BG256432, BF976795, BG166509, AW080966, BE619019, W52136, AV709106, BE619682, AI189286, BE566002, AW084868, AI687212, AV711092, BF697110, BE567660, BE409695, AV710866, AI801202, AI032877, AW410017, BE568300, AI262521, BE963864, AI523891, AI184261, AV691952, BE091071, AV746007, AI566878, AA151257, AI144492, AA826477, AW083498, BE787965, BF851971, BE535774, AW410030, AI399980, N36966, BF435067, AI809283, AI018420, BF967855, AI819520, W30822, AI128356, AI025970, BE672642, BF081971, BF081981, AI880707, AA127920, AW779049, BF676071, AI206487, AW471111, AW028734, AV762883, AI150971, BF881900, AA889268, AA887476, BF858077, N36122, AI190417, AI127953, BF696643, AA843205, N38925, AI566572, AI066676, BE931182, AI990970, BE879114, BF028182, W37751, AA730086, H48432, C18042, AA142846, AI139565, AI688339, AA679046, AA588794, AA127971, AV716260, AA001534, AA719696, AI074105, AA642642, N42965, AV762116, AI375763, N47999, W67531, AV723563, AI627627, AA494298, AA973740,

HHGAS83	23	654868	1 - 833	15 - 847	
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HTSGU37	24	704405	1 - 502	15 - 516	AW163711, AI815378, AL524692, AA813566, AF019406, AL050341, and M95610.
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HOHAL47	38	828872	1 - 907	15 - 921	AA021223, BE548133, AL045143, I15526, I15525, M76125, AC011510, X57019, X59560, X63535, and X66030.
HYASE58	39	829298	1 - 820	15 - 834	AU132881, BF220328, R87908, BE613810, AW250257, AA931266, AW015928, BF095373, BF909602, BF095352, AW502696, BF796996, AA370819, AW502753, BE327008, N49168, AI800258, AI738786, AI651019, BF431451, BF891293, AI341119, BE464154, R87900, R87888, BF761409, BF761414, BF761411, BE672137, BF766414, BF761395, BE551754, AB020866, L27841, and AB029291.
HICAAH95	40	829958	1 - 569	15 - 583	ALS20115, ALS20114, BG249568, BE858532, AI719186, ALS24961, AA978354, AI963126, AW168149, AI016474, BE464809, BE541556, AW274265, AA126722, AA948354, N95214, AA779559, AI143841, AA988766, BF109578, AI052155, AI057145, AA868690, AI123988, AA862955, AA531469, AA565025, AI040746, BE315358, W58681, AA883150, AW973071, F27739, AW469738, W25247, AA677158, AA136191, R72558, AA137218, BE774145, BG163522, AW804292, T85571, R06411, BE559994, AI369527, R06410, BE931292, W58682, T85572, BF984740, AI202246, BE771601, AW204406, T98604, T98605, AA126819, BF804866, M29971, E02953, X54228, M60761, M31767, M84524, S61804, M76704, X54862, X65081, AL355531, S52068, S52071, S52289, AR040785, and X61657. BF968527, BF972443, BE888293, BF245922, AI432365, BF984449, AI376939, AW959079, BF111350, AI809862, AW967166, AI708626, AA743821, BE274422, AA316016, W31195,

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HTTIQ02	41	829981	1 - 440	15 - 454	AU133091, AU142098, AU142098, AU134034, AU135799, AU141415, AU136549, AU141554, AL520149, AU141624, BF309998, N44941, AA165467, BG164969, BF305751, AA370928, AI025054, BE544595, BE297897, BF203543, AL047272, AA490707, AW998147, AW998144, BE719597, AV650018, L19871, U19118, and M63282.
HWACG91	42	830195	1 - 647	15 - 661	BG033793, BG255945, BG259666, BE730050, BE794184, BE280411, BE262457, BE407137, BF974510, BG260129, BE387574, BE250058, BE729393, BE900244, BE280432, BF317365, BF975884, BG255124, BE384164, BE875157, BE275535, BF697620, BE249873, BE729424, BG104941, BF528476, BG178885, BE389393, BE742299, AA160739, BE279276, BE730823, BE730234, BF696116, AI905415, BG169584, BG248765, BE409699, BE409459, BE383471, BE279295, BE514728, AI693883, AI906409, BE733527, AA133328, BE734917, BE747004, BE778282, BG120073, BG116573, AI906399, BG252353, BG250627, BG115053, BF205427, AA932527, BF974800, BF976607, BE275617, BE747869, BE258222, BE899354, BF667612, BE732117, BE394529, BE019949, BE255854, BF663000, BG115598, BE270894, BE877328, BE894791, BE742367, BF981923, BG025205, BE270877, BE313842, BE272239, AW246075, BE731739, BF689778, BE266619, BG122027, BE275677, AW327437, BE958080, BE293564, BE741359, BE279606, BE262807, BE731616, BE278518, BE797742, BE280931, AI906381, BE259001, BE620197, BF342810, BE278592, BE269494, BG033349, BE799713, BE252649, BE790350, AA069850, BE744820, BE731628, BB958554, W28216, BE269344, AW246351, BF665331, BB409170, BF346422, BG025476, BF980658, BE892710, BE251197, BE729414, BE395317, BE747019, BE379494, BE535406, BF980658, BF309487, BE910196, BE795220, BE260707, BG255740, BF310723, BE265360, BE297749, BF311424, BE409537, BG165401, AA186725, BG034975, BF310637, BE744823, BF339822, BF883169, AW675050, BE884838, BE275911, BE394260, AI905506, BE736798, AA131028, BE296169, BE385509, BE735183, BE273644, AA160637, AA157966, BF796949, BG171791, BF103552, BE278910, BE735411, BG260083, BB895233, BF206952, BE264220, BG255060, AA313667, AA076309, BF149164, BF797136,

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HUFBX52	43	830497	1 - 1969 15 - 1983	ALS13910, BF338363, AI799888, BE392997, AW316671, BE044614, AL042665, AA114835, BE394176, BE857118, AA114976, W51953, AV702013, AI972232, BG025156, BE673213, W52502, AW205785, AW137401, BF879476, AI498690, BE504635, AI870560, F33285, AI696138, BF847455, BF847461, H42144, H42144, AW797536, AW580466, AI383137, BE504647, BF194734, AW291200, AI567040, T58430, AV707626, AV705123, AV702887, AV705196, T58462, BG104539, T29553, AV705977, AI972231, AI951152, AA593693, AW873877, T47089, AA393219, AA036671, N77388, AV706493, BF093800, AI686156, AV703987, AA575857, AW959494, AV702830, AV701517, H42145, R00971, T47088, AA063592, D11534, R00972, BF826969, BF345006, BF766206, BE840120, BF378651, N52428, AV707224, C01052, U24488, M25813, X73959, Y11915, X87243, AL049547, AF077974, S38953, U89337, AF019413, X71937, L26263, AB010266, AC006289, AF030001, AF049850, AB015623, M83939, U24489, AF086641, M12792, M12793, M17252, M26856, M28548, M26857, M13936, M13935, M11267, M12918, M64933, AB039881, U56853, U56854, K03234, M92836, and M15009.
HWLJE49	44	831453	1 - 510 15 - 524	BG251415, BG027650, AV716313, BE744852, BG168126, BE875004, AV712837, BE563257, BF183014, BG113939, AV701796, BG260019, BF244649, BF974779, BE740291, BG114363, BG035325, BG027799, BG169309, AV722365, AV712753, AI887549, BG027575, AI076353, BF725392, BG167147, BF663267, BG059083, BE300764, BE742593, AA806402, AI682046, BG027579, BG255168, BE906641, AI188649, BF967533, BE513190, BF182834, BG180632, BG113207, AI144531, AI149488, BF345318, BE675790, BG026111, AL048205, BE207355, AW277103, AI612881, AI761676, AI299022, AI270732, AA308274, BF575148, BE379881, AW005575, BE675232, BE729684, AI302970, BF684952, BE259873, AI748792, AI832372, AI342462, BG255930, BE728928, AW304345, AI917533, BE388883, AA308142, AI270352, AA315030, AA314014, AI720893, BE208370, AA181838, AI370898, AA314940, AI735477, AA316359, BE909454, AA582161, AA313264, AV705734, AA316330, AW338556,

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M18981, J02763, X66449, M37761, AX038700, X52278, D10885, U31867, AJ132717,
U76365, U04815, X05699, AB031064, AL442082, I89947, I48979, AF090900, AF090903,
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HSLGG58	46	833088	1 - 1532	15 - 1546	AL529745, AL521111, AL521110, AL530765, BG035239, BE741863, BE783786, BG115436, BE743770, BF980935, BF032529, AA927626, BG170791, AI360106, BE792111, AI859705, BF515765, AL530323, AI696973, BE673724, BG059565, AI889305, AW194003, AI435237, AI015554, AI425058, AI653782, AI674150, AI292242, AW008174, AA443658, AI052216, AI689404, AW302350, AA682485, AI039198, AA069797, BG055892, BE740312, AA929022, AI559492, BF966723, AA507307, R89566, AA702532, BG055961, AI355925, AA436762, BF083167, BF083176, AW304693, BG152337, BG055803, AA447045, AV743176, R88883, AA069844, AW015302, N62841, AA340462, BF917627, H12262, AA700417, AI866372, BG222934, AA554984, BG036915, AW075240, AI364688, N77748, AA937871, AA507304, AV735802, AW263377, AW960326, BF038245, BF311363, AA770456, AA657774, AI904488, BF530542, AA327748, AW390282, R85655, AA609069, AW188781, BF885085, AL036980, BG165051, AW302992, AW673679, AW673635, AW268067, BE972180, BE964661, AV706744, BF764538, BG105895, BG163618, AW946806, BG122481, BF343568, BG151247, AI336633, AI829327, BF764538, BF339594, AI349957, AW150511, BF816037, BG257535, BE886728, AI340627, AI433384, AI357316, AA830821, AW302965, AI620284, BE965121, BE884999, BE047952, AI500662, AI783504, AL036396, AA640779, BF344691,

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HODFG71	50	843485	1 - 2226	15 - 2240	AC019187, AF235098, AL049743, AL050335, AP001675, AC010348, AP000431, AC010283, AC005409, AC002554, and AC006992.
HCE3165	51	844534	1 - 288	15 - 302	BF380320, BF770784, BF770772, BF770765, BF770108, BG109313, BE884633, BG110701, BF770763, BF380303, BF848233, BF770117, AW753076, N94851, BE887181, AW384469, AW384552, BE771991, H21705, AI741955, AI963814, AW299769, AI917621, AI742118, R55420, H42724, AW205801, AI394684, AW360906, AW360994, AW578414, Z19511, U91329, AB014606, and AC004771.
HSAVH65	52	847355	1 - 758	15 - 772	AW080832, AI693734, BF793712, AI564525, BE869501, BF037343, AV719716, AW024144, AA523950, AW475057, BF827012, AI185475, AI197788, AI708671, AV660309, and AR062277.
HBXFT41	53	847647	1 - 989	15 - 1003	AA778868, AA679725, AA361583, BE727943, BE798065, AA626529, T19700, AA384998, AA374709, AI908896, AI908908, BE255062, AW245790, AA280060, AI114472, AV726479, AA085949, AA081907, BE269296, AV709611, BF725352, AV714707, AV706440, BE790718,

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HBMCM38	54	847821	1-789	15-803	AA665893, AL080243, AI277546, AC005056, AC005179, AC004671, and AC016597.
HACBO42	55	849064	1-1701	15-1715	AW961071, BE703222, AI703476, W51947, AA775876, AW118126, AW419310, BF055108, AI298553, AI168160, AA976583, AA931093, AI343013, AA622237, AI056138, AA101674, T19393, BF222266, BE327125, F12518, T74004, AA825247, AI348336, BE173228, H08634, AA757564, T32177, H08635, AA426547, T87212, D81092, AI690133, D55877, and AB040799.
HODBF86	56	859572	1-913	15-927	BE502582, AW051846, AV694711, and AL049744.
HOABP90	57	859622	1-1239	15-1253	H84974, AI915939, BE396949, D51418, AA158104, D51544, AA828306, AC006387, A12297, M31158, I05692, and M12492.
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HHSDL18	63	869701	1 - 1374	15 - 1388	AA812573, AL518998, AW972473, W73306, AL522221, AI809692, AA513449, BE501387, AI148527, AW452872, AW245994, AA954445, H57889, AW183378, BE872438, AA813225, AI619978, BE794663, AW197888, BF088329, R24069, BF209308, W73041, BE502424, R24121, R26598, AW245458, AI929294, AA249846, AK024151, AL121754, AC008155, AC025593, AC004690, AC083870, AC005011, AL121897, and AL022238.
HTFMS34	64	870486	1 - 447	15 - 461	AW402328, AA354692, AA724612, AV758954, AV744331, AA158742, AI768253, AA353944, AW001224, AI857605, AU156990, AI830105, AA987516, AA588890, AW979250, AW979200, AW974813, AW969719, AW979221, AW975126, AW979156, AW970932, AW973116, AW975987, AW973183, AW975409, AW979220, AW979219, AW973808, AW970064, AW979284, AW974983, AW972802, AW970030, AW975427, AW971985, AW979197, AW975951, AW975012, AW971097, AU137027, AW974802, AW971070, AW970564, AW973136, AW970877, AW975928, AW974987, AW969682, AW973771, AW972762, AW973103, AW971963, AW979145, AW972699, AW975070, AW973217, AW973814, AW972417, AW979140, AW971068, AW976019, AW971949, AW976008, AW969751, AW975656, AW975004, AW979228, AW979194, AW969753, AW970875, AW970921, AW969735, AK024342, AL121928, AL050035, AL135904, AC004889, AL136137, AC009060, AC006480, AC005587, AC010605, AC005783, and AC005696.
HLDOG81	65	874506	1 - 1220	15 - 1234	AL521118, AW339982, AI827788, AI627750, AW575122, AL531441, BF967087, AL038656, AI888509, AW156877, AI094580, BE349949, AI963436, AI634293, AI891103, AW080820, AA910949, AW009916, AW338663, AL525766, AA514770, AL037705, AI924086, AI951034,

AI025380, AU151967, AL038657, AW778781, AI703238, N47212, AI688623, AI091742, N57407, AW188387, N32312, AW469366, AA860531, AW518859, AA863007, AA532789, AW188451, N66542, AI306506, W32410, AW188660, BE223067, AA601517, AI304931, AW338673, AA912494, C75275, AI050054, AI075117, W15332, W32856, AW084306, AV730060, AW081448, AA889232, AI302660, AA902855, AI888343, BE931227, AA507932, AA987475, W39423, AA938584, AA974132, W37293, F34503, AI621117, N27606, AW613309, N90139, AA987821, AA916382, AI299905, AA953919, AL525715, AI282708, AI473985, AI803426, AW591292, AW028183, AA825320, AW173786, AW338830, AI921646, AW157842, AA854048, AA910245, AA855143, R39105, AA989409, T28851, W37827, R63566, AW178890, AI673106, C75395, AA887708, BG108610, AA885915, ALS26138, H19457, AI273149, AA911486, AW473237, AW265368, H42573, BF694671, AI457300, R63520, AA772638, AI824046, AW194001, AA548768, T11298, BE463489, AA813624, N91931, BF672787, AI811441, AI476381, BE828334, AW080982, AL525923, C75171, C01891, BG150929, AL521119, AA084007, AI554233, BF377199, AW884756, AA384963, F29838, BF797072, BF792586, BF971016, BF968453, BG106145, BF343702, BG168468, BG252929, BF983875, BG105758, BG261260, BG166291, BG249591, BG032919, BG030548, BF337945, BF969798, BG105318, BG104735, BG036520, BE782626, BG180793, BF793872, BF344164, BFS25514, BG250790, BF795712, BG255388, BG260963, BF796661, BF969317, BF796402, BF969185, BG167415, BG259435, BG179486, BG113712, BG163646, BG111916, AL042009, BG180295, BF792054, AL039390, BG179586, BG111590, BG036465, BF968622, BG251851, BG165260, BG164495, BG108452, BG035330, BG164183, BG029194, BF797998, BG249858, BF980532, BF527274, BG027631, BG181100, BG169376, BG028019, BG166490, BG111100, BG171463, BG110518, BF797137, BG180200, BG164994, BG105848, BG259612, BF342312, BG250744, BG179183, BG170847, BG259362, BG253110, BG252354, BG167751, BF345716, BF968504, BF345161, BG114865, BF794212, BF341270, AL046137, BG030750, BG024457, BG122277, BFS26001, BG178669, BF794212, BF341270, AL046137, BG030750, BG024457, X61433, J02701, Z99758, M75030, Z11797, U17061, and J02787.				
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HTXQF81				

Gene					Accessions
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HCRNG90	67	874787	1 - 1061	15 - 1075	BE891902, AW271686, BE677446, AW025554, AI420969, ALS21237, BE879239, AI202304, AA375089, BE245380, BE246652, BE547456, AA337142, BE879198, BF218778, X55740, D14541, J05214, L12059, and U21730.
HPWCL64	68	874891	1 - 653	15 - 667	AA531009, BF114862, BE645201, AI803060, BE746455, BF111457, AW058661, BG060155, AW957837, AI871128, AI040865, AI635619, AA279688, AA314121, AA291325, BE044274, AI300358, AI026031, AW136587, N48589, AI333491, AI217438, AA872204, AA313681, BG149853, AA761900, AA825668, N62189, AI742355, AI167192, AA782249, AI472224, AI027048, AA969624, AW957912, AW505197, AA907863, AW576584, AA279718, AA489085, AI356298, AA496950, R81199, AI915658, AW500237, AW242542, BF109353, AA489150, H41907, F09870, AU126430, AV726684, BF061082, AI809172,

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HWLMV62	69	1 - 595	15 - 609	AI718277, AI806204, AI922705, AA134958, AW189584, BE940626, AW152541, BF436606, AW589567, AW779876, AA911194, AA099689, H26598, AI523349, AI783469, C06405, AW979187, AA856931, AW050657, AW580584, AA650629, AA075317, AW993789, AI535926, AF095844, AC007750, and 150896.
H2MAC06	70	1 - 946	15 - 960	AA837575, AI750047, AI762213, AW778875, AA528093, BF594424, AW517424, AW612993, AI749649, AA514773, AA514789, AA421943, AA167440, AI708618, AA400973, AV740396, AI474120, AA514874, AI283967, AV738755, AW845024, AA587027, AV738776, AA167783, AV738660, AA642930, BF879539, AA878029, AW193324, AA857522, AI284506, AA164459, AA164458, AV741975, AW583341, AA838234, AA169614, AV739857, W38398, AW276087, AW264913, AA148194, AA308126, AA169614, AI669077, AA074902, AA148193, AW583781, BF893727, AA079651, BF802476, AW190644, AI306666, AV735674, AV735675, AA167439, AA857853, AA074845, AI199258, AA535642, AI826800, AA166792, AA074727, BF893886, AA421944, AAJ65663, AA075896, AW751341, BF875085, BF765758, AW265060, AW845005, AA076140, AV739168, BF879359, AW591737, BF748440, BF898643, AI626104, AA076188, AI541032, AA837890, N27757, AA102361, BF903121, AV741814, AA165649, AA100735, BF895363, BF892331, AA524360, AI833071, BF748145, AV741817, AA079557, AA593897, AI680515, AA573267, AA401137, AI675895, AA506601, BE696957, BF893703, AV743848, AW272215, BF354583, AA076566, BE004062, BE183618, AV740205, AA837854, BF334915, AA515574, N79823, BF894855, AA169569, AW364597, U47734, AA173827, BF094310, AW664712, BE184103, BE171567, BF354577, BF805800, BG057623, AW150580, BF918052, BB811764, AA299459, BF893822, AA298668, AI810491, BF893729, BE140374, AA076565, BF894873, AI940001, AW062899, BE004010, BF801920, AW062852, AW062884, AW475086, AA366738, BE171661, BF893097, AI797418, AV737676, BE645920, AA298242, BE183717, AI939989, AW352267, BF893885, BE716617, BE859013, AA503624, BF893856, BF894876, AW062699, AI559933, AI749194, AI866124, AA172395, BF900257, AI697412, AI473481, AA502597, AA329732, BF896945, AW270590, AW778853, AW969360, BE711057, AW000856, AA471032, AA494293, AI695633,

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HWLRF06	71	875093	1 - 371	15 - 385	AW841682, BF766770, and D63997.
HODDO41	72	875352	1 - 583	15 - 597	H69413, H69440, AL120745, AA830102, BF898213, AW340795, AI457813, AC007546, AF064604, and AF155103.
HCHMQ74	73	875371	1 - 426	15 - 440	AA305616, AW861809, AW001611, AK023741, AC006057, and AK001527.
HT3AI55	74	875682	1 - 1467	15 - 1481	ALS23414, BE565623, AW955610, ALS23610, AL523413, AI088910, AW469112, AW043896, AA005100, AA262517, AI470354, W78980, R89654, AV750391, AA261819, BF447445, AI079770, AA037517, BF834666, BF834673, BF834676, BF834677, BF834554, BF834667, AA328236, BF836570, AI584124, BF836573, BF836554, BF836568, BF834674, BF836564, BF836558, H19672, BF748075, BF751207, AI247711, AI217267, AV747710, AK025671, AK000219, AL121782, AB034617, and AL121754.
HMVBD68	75	876052	1 - 1266	15 - 1280	BE885169, AW970061, BF439457, AW575699, AW468388, BG116413, BG170032, AW083378, AA057509, AI679190, AV727466, AA574451, AA599718, AA054285, AA706513, AI707934, AW023524, BE142955, R66161, AA199863, AA862725, R84843, BF247952, R85715, AW973101, AW975244, AW979090, H86142, AW975971, AW627831, AL038837, H86028, AW979076, AL039074, AW975143, AW971975, AW975166, AL039564, AL039108, AW972154, AL039156, AW979228, AL039085, AW969930, AL039659, AW979176, AW975941, AL039625, AL039648, AL039678, AW973762, AL039150, AW975022, AW971953, AA059178, AL039109, AW973821, AW975981, AW972296, AL038531, AW971954, H00069, AW974379, AL039051, AL036725, AW975626, AL039629, AL039128, AW969748, AW970540, AW970969, AW979212, AW979147, AW976024, AW971968, AW969885, AW973789, AL040992, AL045337, AL037726, AW970587, AW975434, AW975650, AL042909, AL039423, AW979204, AW973772, AW975596, AW969694, AW971326, AA013394, AW971403, AW968147, AW972440, AL039410, AW970942, AW969798, AL134524, AL039538, AW973254, AW979037, AL044530, AL045353, AL036973, AW968338, AW975058, AW973812, AL044407, AW971404,

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HISET05	77	1 - 912	876686	15 - 926	AI392987, AW204721, AI380500, AI887979, AW166458, AI935193, AI739272, AI393078, AI337398, BE908889, AI262967, AA621187, AW780031, BF002042, AI002949, AA622165, AI078264, AA080959, AW370639, BF001449, BF982414, AA082985, BF001683, AI857378,

HCRQM22	78	876696	1 - 433	15 - 447	AI812113, AW439180, BF818644, BF002657, AA449424, AA514476, AI262637, AI051534, AI374677, AA442087, AA425339, AA594240, AA416576, AA527340, AF287967, AJ270993, X58431, X56459, J03782, U15407, and AF012098. BE544606, BF529981, BE786721, BE251508, BE258319, AW794597, BE255394, BE890405, AL525853, BF757575, AW403014, AI904490, BE747560, BE535798, BE546101, BG028773, BG023780, AI831848, AA115313, AI761315, BE885000, BF808237, BE537206, BE535666, BE535661, BE389956, BE540274, L16783, U74613, U83113, AR030545, A79030, U74612, and AC005841.
HLHTC92	79	877310	1 - 839	15 - 853	R66025, R76969, AW043721, BF109415, AU122689, BF589412, AA553904, AW973590, BE182756, AI417134, R58054, U77970, AR059959, U51625, U77969, and AR059960.
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HOFMO23	82	882466	1 - 730	15 - 744	AL525975, ALS25520, BE263255, BE144775, BG163687, AA340612, AA375347, AA375265, BE880915, BE880848, AF089745, and AC083863.
HNTNP58	83	882787	1 - 2826	15 - 2840	AI829734, AI073471, AA884114, BF983127, AA507637, H59240, AI263494, AI288403, AL121978, Z93023, AC010677, AL035070, Z82190, AC005154, AC003101, AC004883, AP001697, AC004584, Z94721, AC025593, AC005030, AL121601, AP000010, AP001432, AL163303, AP000151, AC007842, AC006483, AC008050, AC007226, L78810, AC006203, AP001728, AL031281, AC016526, AC005011, AL121777, AC005696, AC002073, AC011894, AL049758, AC004967, AC007731, AC005500, AC008155, AC007685, AC005730, AC018637, AC004983, AL121585, AC002404, AL035455, AP002026, AC007050, AL163201, AC005520, and AA913363.
HOFNY28	84	888480	1 - 1605	15 - 1619	BG258222, BG117025, BG168645, BG253641, BG168646, BG167818, BG025417, BG164284, BE612896, BG252223, BE910738, BF345060, BE621811, BE621893, BF984267, BF798053, BG123011, BF984992, BG031014, BG117026, BG117030, BE621810, BG168644, BE614378, T29199, AA362689, AA362688, AA362690, BG253645, BE613101, AW968355, AW972092, AW968356, AW972093, AW968729, AW971740, AW972091, AI432644, AL045327, AI623302, AL134524, AI432653, AW969229, AI432654, AW081103, AI431328, AW972090, AI432677, BE672759, AL044652, AI431230, AW858522, AI431353, AI431312, AI432655, AI431310, AI432650, AR080280, A49045, I66487, A94048, A94061, AR035224, I66498, AR070554, AX002278, AR071324, I09251, I09252, I07209, I07249, AX042374, AX033488,

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HE8MQ01	85	889128	15 - 2708	AI866939, AA338997, AA332893, AL079734, BG056174, AI783911, AI114733, AI133552, AI912401, BE048032, AA515728, AV738383, AW963444, AI056177, AA228778, BF312862, AI620585, AA297666, AA535216, AA837035, BF928469, AV656851, BF891210, BF768846, AW798093, AA581247, AA659608, AA847031, AI439910, BF805088, AA452887, AA827771, AA410788, AA310183, BE350261, AW675551, AA714110, AU147162, AI744830, BG250286, H85792, AA651632, AI580250, BE968744, AA513551, AL119921, AI634187, AL038936, BF808097, AW515437, AA728937, AA610433, BF870792, AW338179, AA583394, AW069227, AW303142, AA654778, AA582073, AA527209, BG008041, AA804925, AI457389, AA176972, F11718, AV760723, AA621381, AI733856, AA489806, AV759115, AA464739, AL118925, AC004112, AL161445, Z97196, AL035587, AF116689, AC003093, AC005098, AC004166, AC007371, AC008812, AC004867, AL122058, AC004882, Z97876, AL133320, AC007568, Z95703, AL096840, Z83844, AC004985, U72787, AC004850, AL355386, AL121881, Z85987, AC003007, AC004884, AD000685, AL023575, AC009060, AL445605, AC022436, AC009289, AC007999, AL008723, AC002369, AL033521, AC006578, AL079333, AC003695, AL022315, AC005081, AC002477, AL161731, Z83308, AC004475, AL031177, AC004585, AC083861, AL008627, AL117337, L35676, AC020908, U91323, AF084941, AL162293, Z70280, U82668, AC006271, AC005632, AC007787, AL035495, AC008685, AC005736, AL049548, AC005318, AC002091, AC007030, AC004638, AF039904, AC018663, AL109921, AF129756, AC002554, AL031117, AF030453, AC010271, Z82174, AL138733, U07562, AC073593, AC002468, AL162615, AC016025, AL136173, AL159168, AP002028, AL031683, AC005189, AC005190, AC007435, AL033517, AC006236, AC005050, AC009087, AP000505, AP000295, U95739, AL031727, AC005295, AL035406, AL022163, AC004089, AL353653, AL049758, AL049758, AC007057, AI295844, AL137802, AC009480, AC009086, AC005821, AC004520, AC002511, AL035697, AL445220, AL391595, AC007308, AP000044, AP000112, AC004841, AC004755, AP001630, AC008560, AL109613, AC005102, AC003043, AC005225, AC008736, AC011235, AL096800, AL354762, AL133387, AL162272, AC010618, AC004491, AC011489, AL031447, AC006581, AC009318, AL133387, AL354762, AL162272, AC010618, AL158040, AL034417, AC011475, AC005781, AL136527, AC005015, AC023577, AC026770, AC005180,

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| HODGH45 | 101 | 917394 | 1 - 929 | 15 - 943 | AW275585, AA489939, AA480561, BF887136, AI285651, BE161469, AW057760, AA648942, AW072963, AI086603, AW630599, BE677227, AL138119, AA280886, R22196, AI038990, AI935827, AI446424, AI754064, AW500532, AA731859, AW855729, AA360082, AI174703, BF792103, AW275640, AI952885, AA425283, AW080062, AW935455, BE967607, BF748493, AA584360, AA330435, AI869406, AV683406, BG231195, AW802912, AI300608, AI183727, BF812696, AA548811, AA489390, BG230829, AW342042, AW963785, AA086391, AW975247, H66812, BE171849, AA345665, BE154761, AA016062, AA370761, AI823395, R43468, AW850089, BF530611, AV695910, BE974200, BF698734, AI623505, AI271693, BF933309, AA551580, AA826079, AU151751, AA018175, AV704185, AW169183, AI028148, AI275989, BF770872, AL043285, AW964164, AA021421, AA640305, AI433262, AW750527, H86246, BF958025, BE154704, AL048969, BF346854, AI274462, BE744372, AL049553, X94359, AC005535, AB032485, AF229986, AB000931, AC004922, AC009362, AL109806, AL158815, AC004835, AC006132, AL035460, S45332, AC002985, AC005000, AC008102, Z92844, AC006166, AL136321, Z79488, AF217403, AF124730, U58047, X69907, AC005251, AL157372, AL008726, AC002477, AC004996, AC002039, AC006115, AP000049, AP000311, AP001718, AL121917, AL080245, AF003626, AC005049, Z98742, AC004000, AC003969, AL162458, AC018663, AC009487, AB023051, AC004643, AC005846, AC005179, AC004650, AJ003147, AC006576, AL136307, AC020934, AC000115, AC010205, AC004811, AC004913, AL160053, AC008403, AF243527, AL353807, AL009181, AL031311, AB040900, AC007249, AL035659, AC009484, AL163249, AL031390, AL133163, AF045555, X84066, AC006317, AC007021, AF060911, AC068499, AL079341, AC020904, AK023361, AP000512, AK026899, AK000252, AC005224, M94634, Z48051, AB004907, AC005944, AC006162, AL050328, AC012442, AL353777, AC006474, AC003688, AC005057, AL034420, AC004148, AP001068, AL445196, AC006137, AC007845, AC004477, AL121653, AL133545, AL139327, U91326, AC006011, AC005154, AL035404, AC011465, AC007879, AC009311, AC005519, AC006376, AC016025, AL137818, AF196779, AC057701, AC008038, AL109804, AC005228, AC004797, AC005409, AC005326, AC004965, AP000221, AL138836, AL353811, Z85995, AC022432, AC073323, U73648, Z99128, AL121890, AC006075, AL139383, AC006121, AC009123, AC006249, AL034380, AL137795, AC004659, Z97206, AL121751, AL031847, AC015550, AC002037, Z69890, Z68287, AC005335, AC004225, AC011491, AC008626, AL118520, AC005962, AC025472, AL133551, AC033101, AC009032, AC005779, AC006388, AC005003, AL008636, Z95116, AC004883, AC004585, AC006455, AL031427, AC007114, AC005098, AC005859, AC005037, AL031280, AC002110, AC000405, AC005546, AC002104, Z99291, AF111849, AF155221, AF017790, AK026624, AF180525, AL050138, AL389982, AF061573, AL133560, U75932, AC003032, AK026633, AB047248, AF065135, AF107847, U90884, AF119871, AF141289, AR070212, AB049900, AF177336, AB047953, AK026947, U86379, and AK026630. |

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HRADL40	103	919433	1 - 1047	15 - 1061	AL523954, AI057097, BE737274, AI740479, BF972939, BE792858, AI797405, BE250379, BE409256, AI418377, BE513939, BG032129, BE734267, BG167040, AI814639, AI817600, AI743696, AW268351, BE563371, AI889412, BF970634, AI623409, BE409777, BE268371, AW612995, BE250540, AW105242, BE464854, AW117856, AW272529, AI745423, BG059988, AI520744, BE407785, AI802882, AW951521, AU151633, AA988074, AA587623, AI864929, AI091730, AI766700, BE299112, BG165794, BE785114, AI382349, AI827080, AI056586, BE387632, AW083461, AI168189, AU129529, AW188543, AI962116, BE789666, AI880229, AI868331, AI338997, AA157276, AW002329, AA258412, AI364317, AW204445, AW197889, AA449331, BF826010, AI564865, AA775328, AW196304, R84307, AA988067, AW473206, AW249890, AA858029, AI480058, AA157315, BG036425, AA192986, BE940591, AA302199, BF109749, AA364515, AA157347, BE205948, AI193424, AA405800, AW197790, AW197780, AA135269, AW250551, AA846661, AA192649, AI760066, AW243173, AA135269, AA135188, AW250551, AA157251, Z25820, L24774, Z25823, Z25821, AA601382, BF797658, AL036368, AA157251, Z25820, L24774, Z25823, Z25821, AC007162, AC005212, Z25822, and U80735.

HOFMP73	104	919895	1 - 2026	15 - 2040	
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HOFMS02	105	920253	1 - 374	15 - 388	AA076264, AA085092, AA080989, AA063334, AA075694, AA084890, AA069099, AA084855, AA084814, AA078759, AA083056, AA083017, AA074846, AA070575, AA069969, AA082755, AA075614, AA075818, AA100017, AA070377, AA070995, AA065075, AA113255, AA070965, AA070321, AA075784, AA075592, AA085065, AA134716, AF093677, L07095, V00711, AB042523, AB042524, AB042809, AB042432, AB049357, L07096, and I62858.
HUVHD12	106	921707	1 - 2708	15 - 2722	BE729461, BF795181, BG108619, BF309103, BE733125, BF027564, BF309068, BE296065, BE281099, BE298511, AW410246, AW409779, BF526623, BF308487, BE298767, AW271999, BE299141, BE298938, AW070334, BF309208, AI810901, BE221973, AI693910, AA029642, AI435095, BE388330, AI765687, AW510727, AW470549, AI862580, AI394548, AI972685, BF589734, N98473, BE223075, BF475345, BF434507, BG059921, AI809960, AI762024, BF779192, AW073339, BF221682, BE856254, BE044436, AW410326, AI763319, AA029710, BE302520, BE465271, AI701495, AI017268, AI799592, AI401766, AI392786, BF308873, BE270326, AW131646, BE390072, AW593466, AI371702, AI638231, AI655706, BF939266, AI369175, AW409726, AI204980, BF308645, BF593057, BF593536, BE205950, AW663740, AI360022, AI278134, AA632035, AA039563, BF056862, AI570638, AI204500, AI362875, BE294172, AI340928, AW294855, AI424041, BF196199, AW237311, AI459219, AI766885, AW016416, AI203132, AA504431, BE551227, AA447758, BFI11136, AI910708, N57532, AI767238, AI421493, BG231658, BF740107, W56299, AA279292, W55871, AA845967, AI340930, W76092, AI870442, N49400, N66084, AI051272, R49397, AA834166, N92406, W61301, AA977863, AA279270, AA453689, N49489, BE279899, AA039564, N51462, BG054588, R73170, AA911075, BF475817, BF851978, AA769921, AI378019, BF224168, AI928755, AA379570, AW269014, AW592153, AI886020, BE044396, BF852201, T47196, BF852157, T90531, BE081267, AA300798, AA323087, H69590, AI653392, W72845, AA323218, BF054948, BFI11142, T83066, W24631, BF924523, BG149504, AI886244, W65365, BE075405, W24197, AI354659, AI419610, T81327, BF917322, N79047, AI880342, AW449928, BE218696, N46989, AI419132, BE219972, BF304931, AA504197, BE299549, AI370420, AI651959, R02389, Z42404, Z38611, AA676675, N53602, AI350904, BF205597,

HMVDQ41	107	922191	1 - 1980	15 - 1994	BE908874, AA403039, AA772356, AA890039, AA706235, AI796685, AW958911, W56103, AA639769, AA707393, AI971384, AI400642, BE349391, AI419056, AA931654, AI074056, AA725449, AW752569, AI278287, AI051080, AA934509, AI056195, AI827412, AA291642, AA252870, AI278795, AI077777, AI344740, AA855074, AA287208, N99681, AA625359, AA707796, AI085793, AA910676, AI375275, AI277706, AA968653, AA482049, AI040845, AA004744, W56146, AA128102, AI038120, AA926651, AI808622, W42934, AI241340, AI419232, AA938251, AA481865, BF939403, N62191, AI350660, AA846421, BE174045, AA928335, AA987944, AA805065, AA325581, AI188852, AI266586, AA401330, AI022609, W37593, AI459456, AA514539, AA480369, AA938533, AA694474, AA694542, AA642598, AI085080, R55037, BF885412, AI719065, AI022981, R36922, AI868718, N94983, AW204000, H62802, AA284488, AA125812, H62716, H41118, AA639530, T49454, T49455, BF772108, AV698354, AW847806, H42251, T36167, AI350924, AA782685, AA252893, AI051453, R10302, AA214099, W86591, N76488, H42250, N59273, BE165692, AA781103, BF985470, AI191721, AA680383, H22403, R10303, N71946, W19456, BE142862, AA977361, H22370, W42869, BF935739, R55145, W37488, BF942272, BF942336, AI309601, R10631, R10632, N76744, AA213991, BF929098, T24749, AA725118, AW753876, R55007, AA090452, BE146939, BF772122, AI247921, AW028468, BF939755, AI084241, BE348377, BF991587, H58310, AW058434, BF947830, BR991716, BF947297, BF991604, BF943751, BF947310, I76219, AC023790, AL117345, AC005373, AC010326, AC006584, AF111168, AC010205, V00589, X57170, AC007182, AC007221, AB019437, X06789, AL133472, J00063, AF193582, AF193580, AF193585, AC007954, AF193581, AF193586, AF193587, X71804, AF193590, AC006449, X83747, X83748, AF193588, AF193591, X71799, X71800, X71797, X71802, AC026704, M10817, AC005409, X83746, X12811, AL109797, AL158824, AF193592, X12622, X16851, X58865, AC004787, AC007131, AB015590, X04309, AL162718, AF099810, AC005284, AL138976, V00647, L49397, X58368, M35175, X04308, K01374, X58367, M74438, X83749, X63147, J01861, M13919, M13920, AL135978, K01537, X63146, X63145, V01426, J01009, AC007955, AI245808, AJ242468, AL050331, X56635, X56631, X63148, AJ237911, V00648, S73106, X56637, M13375, X56632, AF284748, AB001499, AP000350, AF284747, X56636, K03511, K03510, AB001495, AF250529, AB001492, AB001493, AB001494, AB001498, AB001503, M13921, X05867, AF250528, AB001501, M18680, AL031658, AC006120, and S73107.
HODGI03	108	922879	1 - 216	15 - 230	T15353, BE828535, AL445192, AB037836, and AX018071.
HODHD14	109	922955	1 - 734	15 - 748	AI670994, AA457520, AW008614, AA284465, AU147140, AA834633, W91945, BE879668, BE382371, AA179961, BF841870, AJ221804, AL034369, AC008468, AC007394, AC006079, AF003528, AC006231, U96409, AL049834, AL132671, AL121875, AL049594, AC005274,

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					AP001538, AL137787, AF022141, AL023693, AP001674, AC002478, AL008627, AL118508, AL161892, Z93015, AL445490, AL157359, AP001724, AJ229041, AL033397, AC005857, AC005226, AC004460, AL445143, AC010389, AF245226, AC011294, AP001693, AC068919, AC020549, AF109076, AC004237, and AC010223.
HODDC03	110	925296	1 - 528	15 - 542	AC009329, and AC020581.
HVCAG04	111	925735	1 - 1594	15 - 1608	AI936826, BE271770, BE385990, AW149665, AW590950, BF126050, BF432379, BE392412, BF439382, BE395797, BF125134, AI884686, BE395581, AI742092, BE858216, AW150789, BF939693, BF594242, AI859538, BE378674, BE350014, AI018769, AW338938, BF726459, AI336858, AW075598, AW148557, AI423162, AI363261, AI150931, AI459805, BE395206, AI765236, AW954549, AI391683, AW191974, AI202043, AA173383, AA626797, AW087372, AW075549, R11723, AI937602, AA084249, AA419229, AI566797, AA419214, AA613995, H17965, AV725028, AI499630, AI272281, AA084248, BF054837, BF054680, AA075710, AA075743, AI263480, BG057775, AW771806, AI869176, AA834860, AW128849, AA780222, AA970361, AA574173, R17696, BF935708, AA775244, AA827444, AI969011, AA706146, AA665640, BF726644, AA173739, AI480207, AA496806, H06707, BF508715, AA082074, R14544, AW768971, H17189, AA349894, R43737, AV717094, R41205, AV727120, BF219218, R20352, AA776783, AI767459, AV747689, AI141302, BE386060, AI421975, H06756, AI582720, AI054234, AA582576, BE041936, AI140655, BE746601, BE736301, BF345141, AI299246, BE899287, AI138793, AW014802, BF477409, BF432690, BF125664, AA349893, AI817194, BE827461, AA102212, AA620332, BE858655, BF347279, AA960903, AA994321, AI266676, and AF034633.
HCRCE02	112	925837	1 - 1551	15 - 1565	AW082702, AW182938, N76185, AI760396, AW058256, BF939004, AW890838, BF438133, AI800552, AA996239, AA774721, N39067, AA984011, AI094521, AA456754, AA573698, N95736, N63430, N64772, AA836623, AW890829, T56007, H28396, N48422, H28371, and Z82254.
HHERA91	113	926067	1 - 2542	15 - 2556	AU124593, BF305985, BE793458, AW411525, BE746024, AW411524, BE745264, BF792014, AW845240, BE378421, BE272083, BG036629, BE273980, AV684577, BF340012, BE873767, BF033645, BF984116, BF980548, BF306936, BE780737, BF436316, BF968051, BE392778, AU148420, BE777873, BF970020, BG254594, AV707425, BE898179, BF969458, AA442297, BF307860, BE176556, AI921390, AW083114, AI432643, BE857417, BE908252, AA434090, AW135378, AI907299, AW129697, AI907302, AI559576, BF196470, BF850283, BE905441, BF803784, BF855709, BG114638, BG005738, AA437232, BF196470, BF306438, AW088122, AA577937, AA558517, AI952737, AW848212, BF810009, BE076517, BF804862, AW020932, AA434362, AA357638, BE272724, BF741455, BF933621, AI834236, AI653899, BF837849, BF964440, AA479851, BG011157, H53665, AI674310, BF741442, BF799562, AA496510, AA853878, BF033991, BG170573, AW292697, BE396149, AA428249, AA477491, AW973725, BF807612, H53626, BF968611, C01952, N41205, AA430740, BG222431, BF765880.

HAGDL82	114	928396	1 - 1864	15 - 1878	AJ277437, AK022597, and AK000530.
					BF038718, AI052255, AI627552, BF433190, AA890036, AW467145, BF513360, AA679966, BE567783, AA932501, AI655727, N95443, AW613958, H15351, AI308231, AA678372, BE567435, AA861702, AW661963, AW661972, AA844485, AA758243, W69720, W69848, AI025683, N42789, N69505, AI271962, AI953406, AA398963, W24323, AI004883, AA564406, N31480, AW296874, N76230, H11150, AA005413, AA398826, AI770002, AI061173, AI147037, R39153, AW859636, AW970819, R14035, Z41567, AA005414, BF095740, BF671244, H11062, AA661956, AW970819, R14035, Z41567, AA005414, BF095740, BF095666, BE774830, R01400, AA811935, H15726, AI080087, R01399, AI611688, AA491284, AA582554, AA121777, AI079910, AI569086, AI888441, AI298710, AA468923, AA593471, AA565426, AI733856, AI285696, AI040051, AA332989, AI471691, BF842195, BF337291, AA346586, AW327624, AI160117, AA678436, AA302970, AV763538, AI917132, AA191418, T15897, AL035455, AL049985, AC016831, AC004543, AF017104, AL139182, AF200465, AP000963, AC009294, AF205588, AC074331, AC007386, AL136305, AL122001, AL035451, AC004965, AJ229041, AL109919, AL133238, AP001732, AC007405, AL049696, AP001696, AC020898, AL078462, AP001601, AL117337, AB042031, AL121897, U89335, AL353739, AP000472, AC008534, AP002529, AC006195, AC007390, AC007376, Z97985, AC018897, AC006479, AC009493, AP001683, AC007364, AL117187, AP001698, AC005772, AF015720, AL021939, AL356503, AC020655, AL133355, AL078593, AC064878, AL139395, AP002533, AC007221, AC004804, AL049643, AC007545, AC009223, AL135839, AC002525, AC007388, Z84470, AC009179, AL136084, AL121578, AC005899, AC004385, AC005911, AP001712, AC006197, AL022310, AP001706, AP000518, AL049712, AF107258, AC005066, AC004547, AC005701, AL080317, AL031733, AL163268, AL354872, AL391374, AP001697, AL359704, AL137067, AC007842, AP001669, AL136139, AL160033, AF003529, AL031985, AC007157, Z97181, AC006144, AC069298, AC005326, AP001328, AC007077, AC004655, AL391986, AP001700, AL021528, AC008896, Z70272, AL354720, AC007316, AC007102, AL161804, AL050335, AC007653, AC007528, AP001677, AL133284, AL049588, AL117333, AC009468, AC024162, AL122057, AF188025, AL049759, AC009406, AC083863, AB020868, AL445188, AL136300, AC009470, AC004817, AC011248, AL109828, AC007907, AC004865, AC025765, AL160191, AC069026, AC008842, AL135744, AC004867, AL022717, AL121757, AL138958, AL121583, AL445604, AC010596, AL121919, AC011890, AF027390, AC010363, AC006019, AP000466, AF265340, AC005324, AC007790, AE000660, AC010165, AC007597, AC007563, AL035458, AL022719, AL022165, AC005822, AC002288, AL132718, AP002898, AC011452, AL122002, AL137143, AC008074, AC002086, AC026197, AC002472, AC022013, AL031768, AC019171, AL049709, AL050310, AC002422, AC005071, AL132773, AL109801, AP001672, AC007050, AP000355, AL137851, AL137851, AP001694, AL389983, AL157413, AC008071, AL117338, AC009506, AC027689, AC000003, AC000047, AP001694, AL121593, AC004103, AL050307,

					Accessions
					AP001346, AC007845, AL035653, AI006996, AC005058, AP001172, AC008079, AP001598, AC022274, AC007262, AC006205, AL390755, AL096776, AL158832, AC003071, AC004053, AL049745, AA025596, and AI625270.
HWBDS34	115	930484	1 - 3044	15 - 3058	AU130359, AU118385, AU130640, AU127870, AU127056, AU128471, AU129803, BE886921, AW188126, BE889704, AU128544, AI114658, AA779297, AI936493, AW188141, AL045312, AI553970, BF002279, BF671616, BF061427, AI139399, AA406422, AW151544, AI150128, AA194584, AW131406, AL047872, AI087327, AI004128, AA887912, BE708344, AI801388, AA010422, AA194501, AI500467, R66419, BE150925, AU117686, H83852, AA973155, H08158, AI910805, H83831, R01915, T75488, AA058677, AA471337, Z41823, AA774580, AA010394, BE041711, T75527, R52813, AI000146, AA214136, AW014661, AI910431, AI798347, R57531, F03794, AA213958, R01963, BE838102, BE707063, BE706963, T86495, R52845, BF110371, AK027051, and D87466.
H6ESA39	116	933568	1 - 1250	15 - 1264	BF033707, BG116039, AI820052, AI399661, BF940969, AW188045, T26603, AI674067, AI091805, AA477591, AA480288, AI218039, AI300906, AW978872, N71816, AI936066, AI245622, AW194052, AA291409, AA639600, AA778322, BG057053, AI334794, BF732599, AI378435, AI201307, AA918657, AW102947, H01857, AA861142, AI352598, AA302632, AA992991, AI360566, AA931399, AA847869, AW967258, AW081519, AI869896, H01858, AI698735, AA403312, AA936581, AA972408, AI025530, AA143416, AA781469, AW341711, AW003441, R46670, AA613528, AA757047, Z92544, and AI391671.
HPCOR06	117	933678	1 - 457	15 - 471	AA455081, AI263465, BF912280, BF912197, BF912198, AC004980, AL109626, AC006031, AC008774, Z83819, AL445590, AE000659, AC026188, AF003529, AL133328, AC023478, and AC034195.
HTFNO06	118	933989	1 - 909	15 - 923	BF684524, BF340318, BG107767, BF681126, AA497123, BE250611, BF673679, AI925369, BE778532, BE250414, AA497045, AI193675, AI125248, AW301040, AA001314, AA063616, BF109644, BF516348, AA039474, AA039475, N91255, AW630056, AW613821, AI991147, AW705517, AI306650, AII28891, AW627576, AW515210, N92376, BF446911, AA781865, AW007579, AA467823, AW630816, AA938705, AA706012, AA467879, AI695530, AA040221, AA831695, AA541653, W73974, AA872459, W72343, AW103804, BE076374, BF331452, AW605476, AA001684, N26202, D31084, AI245152, W19909, BE932204, AI583969, AI672730, AI707545, AA551882, AA578108, AW088337, AA036698, AI365605, BE841269, AA578193, BF931099, AW605475, BG153138, W24618, C02159, W04846, AW975002, AW979204, AW975037, AW976024, AW975942, AW975965, AW971975, AW972845, AW979127, AW972292, AW975032, AW979238, AW979031, AW975628, AW971403, AW976023, AW971404, AW975105, AW969880, AW979208, AW974801, AW975954, AW971968, AW969839, AW972721, AW969885, AW975952, AW974998, AW969791, AW975930, AW974786, AW970942, AW971732, AW975876, AW969673, AW979098, AW973219, AW971375, AW973254, AW973090, AW979106, AW979176,

| HODFY08 | 119 | 935520 | 1 - 456 | 15 - 470 | AW979002, AW973213, AW973717, AW975971, AW975154, AW972296, AW972377, AW975632, AW975966, AW974964, AW969643, AW973750, AW979294, AW970936, AW975149, AW975649, AW975028, AW973209, AW975025, AW975254, AW974785, AW974823, AW976511, AW974806, AW974658, AW975585, AW976031, AW974975, AW975027, AW975020, AW971326, AW975019, AW969852, AW971254, AW975990, AW972849, AW970889, AW972867, AW975692, AW979220, AW970969, AW979219, AW975959, AW979169, AW973819, AW969816, AW973185, AW979212, AW969861, AW974802, BG151745, AW971378, AW975634, AW975015, AW979054, AW975167, AW972226, BG153750, AW972660, AW969727, AW973814, AW973775, AW973217, AW969768, AW975896, AW973779, AW976003, AW969874, AW976000, AW975434, AW972719, AW973262, AW970113, AW972884, AW973202, AW972695, AW973805, AW972680, AW976515, AL039074, AW975976, AW979165, AW976510, AW971954, AW975975, AW969884, AW972943, AW969759, AW979083, BF592735, AW976982, AW970587, AW973650, AW979175, AW969931, AW973986, AW979064, AW975938, AW975016, AW975138, AW975968, AW970921, AW969766, AW972709, AW979116, AW972806, AW973987, AW975910, AW975943, AW972689, AW972706, AW973164, AW974374, AW970097, AW973824, AW971964, BF588769, AW975904, AW974379, AW969752, AW976037, AW973104, AX046357, AR060234, AR023813, AR066494, AR064707, AJ279014, AR096545, A81671, and AR096546. AA747608, AW975995, AA256200, AI431918, AW886025, BF965611, AI621212, AW867016, AV645418, AI436124, BE048562, AW898294, AW880127, AW880440, BE081675, AW997462, AW880432, AW880266, AW946173, AW880359, BE170427, AW880049, AA228900, AW862989, AW899139, AA558500, AW796080, BE816601, BE010148, AW996482, AA640849, BG057615, AW996413, AW893101, BE816610, BE170365, AW270207, BE000410, AA501690, BE827577, AA721598, AW237896, BE181299, AW237940, AW996346, BE088714, AW795108, AA501719, AA557437, AA910096, AW063981, BE170597, AA503566, AW275631, AA259218, AW996170, BE091646, AW899295, BE082424, BE835169, AW946231, AW996655, AA640998, BE826780, AA713882, BE082418, BE826740, BF332416, BE091167, AW866936, BE082383, AW887658, AW894357, AW946277, AA715611, BG059116, BE089449, BE826743, BE170594, BE826769, AA613748, AA658572, AW880433, AA225819, AW946266, AW238729, BE835200, BE835202, BE082440, BE080195, AW865798, BE079906, BE079912, AW865618, AW880070, BE082419, BE082423, AW880128, AA632977, BE082437, BE827556, BE816607, AW868862, BF478324, AA226655, AW796081, AA612977, BE168364, AA558278, BE699508, AW894540, BE816614, AA170820, AW884606, AW892161, BE089273, BE816615, BE183896, AW821605, BE089602, BE184051, AA650193, BE082421, |

HRACK27	120	935717	1 - 2723	15 - 2737	BE835160, BE089293, AW903394, BE089284, BE083828, BE826770, BE089287, BE163413, BE826782, BE835197, AW866656, BE826771, BF735344, AW887483, AW893432, AC006020, AL049780, AC007055, and AL132855. AI797673, BF222825, AI638276, BE784408, AV684863, BF217945, AV712945, BF185949, BE707564, AI983071, AW300244, BF949779, BE502956, BF674065, AA999982, BF572901, AI379012, AW237408, BF512700, BE671433, BE221745, AI439170, AI634105, AA256584, AI672401, AA904964, AI742625, AI925484, AW129743, N45400, AA570413, R17726, R20014, BF593101, H50174, AI287883, AI478134, AW183869, AA629865, AI984609, AI760492, AA126804, AI979187, AA256541, AA400198, AI287866, BE044058, BF954310, AA353809, AL040798, N32088, R14618, AW087798, AA687346, AI949879, AI262174, AI927259, AI912920, AA262622, BE771761, BF590031, AA935907, AI927253, H50126, BF886641, R44828, BF886649, BF957504, AI370543, AW381072, AA400357, AI193434, AI470872, AI473255, AA856870, AB037795, AL133045, AB050258, and D16989.
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HOFOC32	122	941969	1 - 1883	15 - 1897
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HTTDM15	123	942511	1 - 1895	15 - 1909	AL080060, AF090934, AF113691, AB041801, AL049452, AB049758, AF017152, AL110221, AX006092, AL080137, AL137527, AF113690, AF116688, AF113677, AF130059, AL390167, AL162083, AF113689, AL359601, AF113694, X63574, AK025958, AL442072, AF090901, AF113019, AL122121, AF118064, AF119875, AB048964, AF118070, AF207829, AL122050, AF130092, AF130075, AL157431, AL122093, U42766, AR059958, AF090943, Y11587, AB047615, AL080124, AB019565, AL133075, AL133016, AK025772, AL050277, AF116691, AF106862, AL122123, AF119878, AL049314, AL050108, AK026608, AF116631, AL050116, S78214, AF119899, AK000618, AL117460, AF130104, AL050149, AL442082, AL389982, AK026647, AL110196, AK025339, AL162006, I48978, AJ242859, AB051158, AL137557, AB048953, AF113699, AK000137, AF111851, AK026744, AK025084, AF130105, AF090900, AL117457, AR079032, AF138861, AL050146, AF111847, AF090896, AL133606, E07361, AL137459, AL133080, AL050138, AK026533, AL137283, AL049466, AK027096, Y11254, AF091084, AL359618, AL096744, AL049938, AJ000937, AK000212, AF314091, AF146568, AF079765, AF125948, AL110225, X82434, AL359941, AF119909, AK026784, AK000652, AL117394, AK026592, Y16645, AK027113, AK000445, U91329, AB048954, AK000083, AK025092, AR087170, AL353940, AK026583, AL359615, AK026452, AF017437, AK024538, AF242189, AL137550, AK026532, AK025491, AK026542, AK026504, AK026947, AL133560, AL049464, AF116682, AK026534, AF130066, AL122098, AK026927, AL117585, AR011880, AF225424, AF271350, A65341, AF177401, A08910, AL049300, U00763, AL049382, AK025391, AF097996, AK026959, AK000323, AL049300, U00763, AL049430, E02349, AJ238278, A08912, E07108, AB047904, AF177336, AK025967, AL050024, AL117583, AF067728, AX042059, AK026353, AF130087, AK027204, AF130099, AK025414, AB052191, AK000432, AF119871, AB052200, AL117435, AK000647, AB050510, AK08909, AK026630, AK027164, U80742, U72620, AK026086, X70685, AL359583, AF183393, AF130077, AK026528, AF118094, Z82022, AX026824, AX026823, A58524, and A58523. BE883532, BG107414, BF314540, BB898459, BE746984, BE542496, AW958579, BF573504, BE734208, AU125474, AW953779, AW292502, AJ802426, AU149129, BF575571, BG031927, AA436628, AU150986, AA076658, AA046746, BF081743, AA046670, AW294732, BF095716, AW673051, AW601449, AW601455, AI601235, H66950, H66951, R85537, AA363520, R40736, AI202299, BE092409, AA363830, BF085875, AV749014, AW190087, AA808657, T98596, AW896216, T98595, AA355808, AI910194, AA079565, AW377204, AW377198, AW377106, BE699057, AW377170, AW752839, AW362224, AI223245, BE186054, BE832662, AW579894, AW579890, BE876022, AW377180, AB007866, and AL109823.
HOVAY63	124	944031	1 - 729	15 - 743	R32912, R32812, and AL022725.
HDPFY41	125	946502	1 - 2106	15 - 2120	AL042656, BF982270, BF678765, BF095732, AW971745, AV681512, AV681529, AV681509, AV681500, AV681492, AV645393, AV645392, AV645390, AV645385, AV681526,

AV645536, AV645317, AV681507, AV681465, AV681525, AV681495, AV681505,
AV681502, AV681504, AV681486, AV681483, AV681464, AV681462, AV681487,
AV681506, AV681523, AV681519, AV681497, AW812618, AV681471, BF095731,
AV681513, AV645358, AV645401, AV645332, AV645383, AV645377, AV645379,
AV645389, AV645369, AV645380, AV645321, AV681527, AV681501, AV645400,
AV645404, AV645353, AV681458, AV645334, AV681510, AV681528, AV681474,
AV681514, AV645339, AV681477, AV681491, AV681472, AV681475, AV681488,
BE613349, BE612945, BE622828, BE613070, BE614237, BE613136, BE622931,
BE621911, BE614230, BE622925, BE618811, BE622868, BE620742, AV681461, BE614451,
BF679682, AV645350, AV645344, BE620756, AV681531, AV681468, Z99396, AW861944,
AW804686, AW392670, BE695785, AL119341, U46341, AW604723, AW877209, AW372827,
AW858526, AW577135, BE705903, BF868697, AW858525, BE705906, AW384394,
AW861889, AW858455, AW363220, AL119443, AL119457, AL119497, AL119355, AL119319,
AL119324, AL119363, AL119363, U46346, U46351, AL119484, AL119391, AL119444,
AL134902, U46350, U46347, U46349, AL134533, BE705905, AL119483, AL119396,
AL119335, AW861954, AL134528, AW604726, BF868687, AL119439, BF868684, AL042433,
AL119522, AL119399, BE705904, AL134920, AL037205, AL119496, AL119401, U46345,
AL134536, AI142132, AL119418, AL042450, AL042614, AL042614, AL134525, AL134538, AI142131,
AL119464, AB033091, AL050294, AB051127, AR080280, I25027, AR054109, I44515, I26928,
I26930, I26927, I25041, AR069374, AR069375, I44516, AR091518, AX009487, AR035224,
AR009152, AR009151, AR093392, AR093383, AR093384, I85513, AR027099, I05393,
A10617, AR028792, A94046, A94054, A01324, A01323, AR034783, AX030966, I63120,
AR067733, AX009486, AX029455, AR064322, AR064323, AR064320, AR064321, A94048,
A94061, AX027785, AR038307, AR083151, A49045, I05430, A83642, A83643, AX035462,
AX003194, A70359, A32110, AR028793, AX032758, AR018923, AR000006, AR015960,
A92665, AR028791, A48774, A48775, AR000007, AR051652, AR091393, AX008865, AX008867,
AR015961, A48774, A92080, A92077, A92078, A92079, AX030369, AX030368, AR069413,
AX008868, AX033489, AX033490, AX033474, AX033487, AX033486, A91752, A91751,
AR069417, AX036660, AR036661, AR068508, AR068510, AR068509, AR091571, AR085090,
AR003585, I58322, I58323, A85308, A91754, AX026821, A63067, A51047, A63064,
AX044426, AX044425, A63072, AR031375, AR068507, A60213, AR068506, AX046332,
AR062871, AX001323, A44171, AX027908, AX027904, AX027906, A49700, A60207,
A60208, A58521, AX001324, AR068550, A23373, AR068551, I58669, A29109, A32111,
AX004550, AR031374, I07209, I07249, A63954, AX026820, AR019098, AR051651,
AR019097, AR020199, AR020200, AR001287, AR020198, AR020197, AR029418, AR067734,
AR067731, AR067732, AR029417, I89986, AX024906, AR085093, AR051957, I09121,

1797

HCOPB92	126	948608	1 - 466	15 - 480	Y14971, AR019096, A93444, A46342, A46343, AB026436, AR055065, AX046357, AX040911, AR054110, A30600, AR032878, AR055066, AJ251859, AX030435, A81671, AR066494, AR060234, AJ279014, and AR069079.
HBJHO83	127	948708	1 - 963	15 - 977	AC000120. AW139587, AW206289, BF439266, AI418005, AA196170, AV721569, AI493150, AI539840, AA827263, BF525553, AA342835, AV723060, AL135079, AA992466, R84740, AA018860, AA889455, AI032948, AI086195, H05897, AA136660, AI052553, AA335442, R96455, AW341838, R96454, AI204085, AW277153, AI004047, BG253018, AI916309, BE219764, BF439900, AI123630, AW339238, AA521073, AI144557, AA935749, AW207577, AI269030, AW513165, AW611961, AI554132, BF335547, AW604457, AA777781, AA946701, AW604440, AI184875, AW578528, AW205588, AV720037, AW373059, AW373058, BE706100, BG026120, AC009276, AC078847, AC020910, AC008760, AC022143, AC008747, AL117337, AF205588, AL050308, Z98950, AF030453, AC005088, AL110162, AC005919, AC003682, AC009196, AC011449, AC007793, AP001748, AP001630, AL356234, AC022150, AC005229, AL031432, AK022963, AL031846, AC006987, AL031602, AC008969, and AA583226.
HWMEO44	128	948719	1 - 3170	15 - 3184	AU137551, BE395366, AI304317, AW873045, AI860936, BF055055, AI394148, AI807018, BE930782, AU157883, AI131366, BE930853, AA862613, AI377403, AA126958, AI279884, AW473660, AW297366, AI951292, AI801182, AW206733, AA659802, AI127181, AI807789, W35110, AW044562, AI263384, AA626115, AA127167, BF886019, AW474787, AA133858, AW438973, AI478424, AI350993, W23677, AU139094, H48882, AI784505, AI873664, AA133857, BF478061, BE547913, BF973166, BE154191, BE814299, AI015764, AI520921, AA295407, BF820817, AI826302, BE002337, AI891052, AA310690, R86154, AI718930, AI890831, AW999311, C02402, AA669161, BF094289, AW612303, AA506435, F05073, BF931686, AI056063, AA326471, AW962216, AA485879, BF916803, AA814996, AW995444, AA633940, AA628592, AA514284, AK023661, AL137608, AF038963, AF181119, AF319661, AC010139, AL158824, AC020647, AC004021, AC008179, AL356118, AP001625, AL121763, AL138996, AP001747, AC062033, AP001626, AL359693, AC005704, AC009262, AC004863, AC005686, AL445465, AL158159, AL031073, AC007021, AL034452, AL355382, AK021584, AL118498, AP270569, AC009113, AL158033, AC018900, AC006988, AC078937, AP001039, AC007749, AC009410, AL136300, AC009757, AL359694, AC007455, AL121933, AP001732, AC000392, AC010361, AC005017, AC007363, AC006322, AC012405, AFI31798, AC005521, AP001671, AC004231, AL355492, AL022719, AL391818, AF130359, AC005815, AC008177, AC009294, AF212831, AL356954, AC010180, AC006024, AL136501, AC007677, Z80771, AL049833, AC008123, AL138714, AC008952, AC026239, AC008838, AC009365, AC004108, AL163213, AC004078, AC005948, Z54246, AL357129, AL159996, AL121947, AL096828, AC009362, and AI310056.

HFXIA96	129	949001	1 - 1041	15 - 1055
				BF793559, BE742939, AW007066, AI869968, AW273225, AI700037, AA443693, AW291991, BE328045, BE747815, AA777593, AI420588, AI033693, AI457222, BF221961, AI954483, AW084920, AI049858, AA203157, AW958390, AW194899, AA777584, N99910, AI150737, N99913, AA379692, BE468258, AAS27616, AI458637, AA447078, W25289, BF845179, R80028, BF572256, N75501, AI214958, AI241596, BE799357, F10487, BE726238, BE392003, BE464214, BE391216, BF090234, R79938, R00703, BE735896, AV718692, AW966330, AV707024, AW975618, BE312058, C14331, AV742732, AW964468, AV724520, AV718681, AV705066, AV718489, AW973541, C14389, AV718800, AV699550, N71180, AV720791, D80164, AW978634, AW978648, AV701645, C14429, AV727990, D59467, AV699927, AW966053, AW973445, AW966054, AW960465, AV721644, AW966062, AW960553, AW964477, AV719468, AV720211, AV719783, AV720464, AV719188, D80227, AW966534, AW966022, AW966050, AV731510, AW959062, AV703472, AW966531, AW966041, AV718707, AW966013, AV719822, AW959570, AW966029, D51799, D59275, D80195, AW975621, AV701004, AW966075, AW966065, AW949654, D59502, AW973334, AW959597, AW959799, AW965185, AW965197, AW965175, D80269, AI611738, AW973307, D59610, AV723772, AV742048, AW949641, AV719557, D58283, AV720731, D59859, AV720150, AW959582, AV699447, AW975613, D80022, C15076, AW959628, AW960473, D80166, AW973474, AW973488, AV718931, D59889, AV720203, AW964756, AV718938, AW965158, AV738340, D51423, D59619, AV718633, AW975605, AW978661, D80210, AW965163, D80391, AW973485, D80240, D81030, D80253, AI802240, AV703042, D80043, D59787, AW958992, AV722801, AV719324, AV718440, AV720028, AW956434, AW965177, AW965196, AW965184, AV720878, AV718844, AV718770, AW973482, AW966389, AW958993, AV723927, AW959136, AW964488, AW962082, AW949656, AW949642, D80378, AW964737, AW960454, D80038, AW959202, AI557751, AV744690, AV683513, AI358701, D80212, D50979, D80193, D80196, D80188, AW949646, AW949633, AW966059, D80219, AV720220, D59927, D51060, D80241, AW949658, AV741220, D57483, AW966043, D50995, AW975623, D80024, D80366, AA305409, AW960532, AV721386, AV700889, AV742735, AW949629, AW949632, AW949631, BF089679, AW973330, AV720812, AW956397, AW949653, AW949645, AW949631, AW966030, BG029829, AW966032, AW949643, AW949618, AW949657, AW949655, AI829327, AW966030, BG029829, AW966032, AV723097, AI610645, AW964532, AV742022, C14407, D80045, AW753053, AW966023, AW960570, AW177440, AW959469, AL036954, AW973490, AW103442, AW960504, AW973447, AC011500, AX033851, AX047063, AR018138, Z82022, A84916, A62298, AX047064, AR070327, A62300, AJ132110, AX027925, AJ302649, Y17188, AR072729, S68736, AF058696, AR087649, X82626, AL137480, AX047062, A30438, AX021518, AB028859, AK024594, I48978, AF106657, AR008278, AL096744, AF119865, X67155, AX040974, D26022, AX035434, A25909, AL133072, I89947, AK026927, AF113019, X68127, AK027204,

					Accession Numbers
HTLGV19	130	949574	1 - 744	15 - 758	AX020191, A67220, D89785, A78862, D34614, AX020190, AR038854, AL137529, A82595, AK026532, I48979, AK025092, AK024538, AK000137, AL359583, AL389939, AF230496, AX026824, AX026823, AB048919, AF081197, AF081195, AK000323, Y14314, AK026542, AF177336, AX028130, AL137533, AF097996, AF061795, AF151685, AL023657, A08913, AF017437, AK024588, AK026597, A77033, AL353956, AL137488, AL359618, AR079032, U35846, AL122050, AK000250, D88547, AF130099, AL122093, AF116688, A08916, AK026462, E12747, AF026816, AF090934, Y11587, AL080159, I33392, AK026045, AF116654, AL157482, AF061981, AL117435, AK027096, AJ299431, AB048954, AF079763, A08910, AK026504, AF090943, I89931, AL137478, A08909, AK026583, AF111851, AF090896, U79457, AL117394, AR087170, AJ000937, AL137459, AK027193, AL133075, Y12724, AL137476, AF111112, AL389935, AR016808, AL122110, AF130055, AF087943, AB050410, AL117416, AF113222, AF090900, AF130082, AF260566, AL133606, AL122123, AR083266, AK026480, AF225424, AL359596, AK026885, AF119909, AK000083, AK027146, AK027164, AF116646, U87620, AK025708, A45787, U80742, A08912, AL137521, AF061573, AL122121, AL162002, AF116691, L19437, AR077702, U67958, AK026744, AK025414, AK025209, AX045627, AF217987, AK026506, AK027213, AK025632, AX020124, AK026452, AJ006417, AF116639, AK026408, AF119899, AF217966, AF132676, AF061836, AL359601, AF090903, AL080060, AF067790, AL162083, AK000418, AF119875, A18777, A65341, A08908, AL137648, AF026124, AF242189, I09499, U68387, AL442082, AL137705, AL050277, A21103, AF314091, AL110197, AK024992, AB048953, AK026526, AF116610, AF218014, AK026959, AK000212, AK027182, AL117460, AL050149, AF158248, AF177401, AL080148, AL050138, AL050393, AK026647, AL110280, AL080124, AX019230, I41145, AL353625, AF162270, AR000496, U39656, AL133640, AL049314, AF210052, AK026762, AF183393, AF111849, AL133016, AF125948, AL353940, AF056191, AF104032, AK000718, AK026865, AF113690, X82434, AF100931, AB052191, AL133080, AF130105, A07647, AL049758, AL117440, AF185576, U78525, and AL137294.
HMSAC18	131	950257	1 - 1201	15 - 1215	AL518685, AU118408, AI392811, BF435451, AA478198, AI435141, AI803046, AA478040, AW206706, AW367708, AA846117, AI928295, AI928292, AK024084, and AF178985.
HAPRB43	132	950475	1 - 2152	15 - 2166	AU130929, AI814257, BF666825, BF110784, AI935638, AI420022, AA777386, AI554876, BE671069, AI014540, AI688634, AI697997, AI688556, AW297238, AI806683, AW263154, AI589076, AI149951, AA806969, AI741202, W44753, BF515202, AA974046, AA931887, BE763568, AA382865, AW969873, AW614265, AW082158, AA781969, R23772, R09585, AI207121, AA484643, AI538065, AW440609, AI619547, AI088390, AI741925, R09490, AW196711, AI584006, AI702846, AV755023, AL043103, AW959372, AW951170, AB023584, AF228917, AB020860, AK001608, Z47777, A30438, L40401, I25947, U46128, AJ133038, and AR040601. BF338835, BF793959, BG260639, BF971421, BF029896, AI654147, BF132023, AI810992,

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AI589186, AA910037, BF727158, AA570707, AI765595, AW18411, AI806437, AI760065,
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HKBAL08	134	958219	1 - 852	15 - 866	AI598222, AA722521, AA961088, AW813731, BF953169, T47819, AA297068, 240359, AI698654, T47848, AW384795, AP001711, AP000248, AL136295, AC004867, AP001748, AL133245, AC004166, AL354720, and AL158830.
HKADF15	135	960658	1 - 2143	15 - 2157	AL537210, AL533136, BF345427, AW149077, AI189363, BF725380, AI052124, AI972848, AI336302, AI816720, AW192810, AW055174, AI148561, AW026468, AW072848, AI889989, BG163656, AI678779, BF966582, BF349689, AW152007, BF344992, BF337402, AV733778, AL533137, BF969402, AW964811, AV702560, AV752950, AA411195, AA632007, AI754763, AV725935, AA187659, AA488502, BG012437, AA411095, AA488517, AW380192, W81692, W68748, AV733973, AA128063, AA579881, AA037211, AA488385, AL535898, AW581075, W29006, AI127593, BF958186, W81265, BG000741, AW581079, BE138892, BE856061, W81693, AA479844, AA044753, AA707190, AI005306, AA186718, BF382521, AI128816, AA838684, AA112161, AA937185, AI128549, BE765227, AA488370, AI038838, AW510870, BF590113, AW241743, AI191854, AA634260, AI375760, BE697900, AA946838, AI122640, AI799431, AW150253, AI807683, W67176, BG000745, N39772, AI610621, AI126866, AW088704, W68726, W94696, AI189851, AI423369, AI167706, AI750804, H09725, AW014642, AA682978, AA186659, AI701245, AV725200, W17262, W47107, AI620250, AW085733, AI365999, BF243094, AV745950, AA102171, AW382122, W69696, W84609, AI066654, AA187789, AA188311, AI038848, AI138433, W80472, H10483, T95046, AW005675, R52327, W45606, AI750805, BE714469, AA186646, BG009129, AA705736, AI375026, BG013718, AI742719, AI096392, AA970331, AI189681, H42958, AI831119, R64072, BF726628, AA181038, AA083962, W67175, BE168843, T15745, BF934277,

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HOGES55	136	961337	1 - 1963	15 - 1977	AW182452, BE250716, AI890424, AI640157, AW474326, AW130973, AI056660, AW150989, AI288965, AA242985, AW793562, BE250569, BE465736, AI744015, AI651429, AI636121, R06846, AA251971, AV650220, M91487, AI985781, R06845, AW363115, R02003, BG037194, and C01117.
HKZAJ14	137	961458	1 - 1254	15 - 1268	AW976735, AA883247, AW317020, AI091039, BE349081, AI080490, AW009024, AI421443, AI141417, AW838561, AI333982, AW020988, AI332667, AI003921, AA740607, AI373690, AA424587, AA400517, AA972391, AI379240, AA633581, AI370902, AA620797, AA757270, AA909500, AA424632, AI680616, N32107, BE858145, N56779, AI870568, R71439, AI270464, AI085139, R43738, Z41046, AA225666, AI767739, AA502917, W37208, H00748, BF511394, BF887497, AI270546, AW271656, AI791895, AW805578, AA225611, AW370265, AL041562, AI792126, AI299358, R89180, BE671252, AA809663, AW183464, AW838715, AW838708, AL036881, AW029142, BF764614, AA805240, AI872415, AI351544, BE143557, AW299713, AW367344, BF875698, N74449, Z19142, H54493, T50149, D29384, H73186, H9088l, AL133051, AF227906, AL021329, AL157406, AL157381, Z83843.

HLHAB14	138	962362	1 - 2040	15 - 2054	AC008851, AL109612, AP001696, AC016689, AL136455, AC005204, AL139810, AP000340, AP001761, AC003049, AL135790, AL031054, AC010168, AC004106, AC004853, AL118496, AC068999, AC005014, AP000217, AC018698, AP000529, AP001731, AP001606, AP001605, AL118507, AL445188, AP002027, AC040163, AC010491, AF188025, AC010419, AC002066, AC007558, AL121823, AL022397, AC003968, AL049765, AC006978, AJ133269, AC007316, Z82194, AP000081, AL133229, AC004025, AF064860, AL161771, AC006287, AP000528, AC007683, U66059, AL034375, AC010627, AC010142, AL158144, AL109931, AC007132, AC005245, AL035604, AL035542, AC004453, AL139115, AL163280, AP001683, AC007920, AL135936, AC016898, AC004981, AC022509, AC006324, AL034369, AL360078, AL121582, AC012087, AL445669, AC011504, AL049646, AC005837, AC005227, AC000059, AC009196, AC009313, AC006265, AL354793, AL137251, AC007963, AL354866, AC007051, AC022203, AL162718, AL121590, AB041731, AB020863, AC008534, AC004175, AC008468, AC002122, AL137013, AC008876, AL163218, and AB042031. H49208, AI248942, AA358780, H60492, H60446, AI243090, H49394, AP001724, AL031591, AC006924, and AC005234.
HBCJN16	139	965190	1 - 868	15 - 882	AI978837, AI627369, AI564009, AI628545, AI690964, AI538855, AI860651, BF222777, AI683754, AI970793, BF436904, AI812041, AI829891, BF589851, BF032982, AA642553, AI560810, AA470903, AI359026, AI921985, AW664949, AW591110, AI083732, AI818681, AI827128, AI961526, AA125808, AII60064, BE898095, AI564610, AI624988, AI924700, AI278468, AW874402, AA483290, AA858390, N52182, AI225074, AA766421, AI376593, BE396135, AA830375, AW473661, AI698343, AI986231, AW950982, R89609, H78819, AI540430, R88929, BF691490, AA653492, BE382384, AI424782, AI241315, AI699227, R59708, AI613142, AW473446, AI244930, AW051166, AW193591, AW797434, AA909760, AW242968, BF221706, AI336173, AI923108, BF364662, AA128281, AV733824, AV757816, AC004602, X97966, X14479, X14047, and X72874.
HCGAF29	140	965372	1 - 2309	15 - 2323	AL528207, AU124711, BE745523, BE740018, AU124009, BE730967, AU132736, BE899077, BG261113, AW968672, AW971792, AI492156, AW235604, AI880771, AI697107, AI638177, BF183859, AU148517, AI968089, AI624692, AI378254, BE349453, BF062207, BE505015, AU150234, AU154209, AI922229, AA775806, AW044370, AI086087, AI151386, BG105708, AA423984, AA278565, AI073529, AI203148, AW117988, AW470396, BF827404, BF880196, AL135528, AV681665, BF445663, AA423985, AA481532, AW779281, AU127788, AI567161, AI266199, T93231, AI696723, AI655248, AA916500, AA811605, AI749400, BE927591, AA481598, AA523223, AA431069, AA522577, AI696237, H42013, H42014, T92694, AA743286, BE302733, AA258068, BF939161, AA417908, AA723166, AA418159, AL119399, AL119511, AL042382, AL042544, AL119457, AL043152, AL079794, AL134524, AL043168, AI675778, AI370623, BG166654, AI270183, AI613144, AI521799, N25033, AI368579,

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				AA699935, AA913815, AA425190, AA887078, W92464, R49087, AV745531, R15894, N42047, BF351126, AW370682, AA400368, N49443, H23382, AV711898, AA400369, AA644429, W21227, BF754252, H96938, AW401928, R86075, W92292, BF846791, N64209, BF891292, BE092775, AA193535, Z25009, AI216147, BF515367, N78483, AV735098, AA453929, AA814891, N93457, AA355548, AA295442, AA978114, AA603219, BE855678, AI825796, AL043824, AW182655, T78936, T08772, AL157620, AA724481, AW752237, AA193438, AI400285, AV701015, AI358866, AA910165, AW351740, BF684919, BE855736, AI432369, AW631129, BE259815, BF087116, AU124620, AU121144, AJ978558, T78991, AA555092, N56946, AW665735, AI826826, AA971640, AV704599, AI056732, AL119173, AI038989, BE879922, W92507, AI246684, AI080258, N93740, N20183, AW902953, AA425759, AA486738, AI214476, H67025, AA907233, BF999810, BF885209, AC009155, AK022130, AK022752, AK001688, AB046832, AK024314, and AL137000.
HOFMS34	149	973010	1 - 1006	15 - 1020	BE736746, BE379381, BE378584, BE378500, BE378075, BE515303, BE780958, BE614826, BE393601, BE394088, BE735483, BE392462, BE394406, BE378901, BE394632, BE378758, BE615872, BE388690, BE378357, BE387695, BE563033, BE392780, BE392047, BE395788, BE394179, BE392832, BE389364, BE389345, BE395181, BE392472, BE515219, BE615406, BE464826, AA453149, BE735871, BE392729, BE387682, BF210381, AA442802, AJ403128, AC007078, and AC004980.
HOFOB11	150	973505	1 - 781	15 - 795	AL533548, BE789099, BG116125, BE887081, BG107890, BF700463, BE880927, BG030517, BF030581, AW957637, BE781717, AV733955, AV710046, AV718270, BF668753, BF669212, BF701113, BF129991, AV714563, BG254144, BE878731, BF701393, AV651776, AA314273, BE568697, BE545003, BF242902, BF666696, AV757896, BE904360, BF978924, BF665580, BF028073, AW351912, BF697317, BF037589, AA305370, BF213439, BF724466, BF241919, BF185721, BF692658, AA306430, BF667996, BE388408, BF964977, BF669293, BF185277, BF700414, BF211541, BF665260, AV707435, AW752399, BF244581, BF541632, BF680798, BF028474, BE960947, BF104162, BF029708, BF667913, BF695497, BF665760, H18045, AV701697, BF381984, BF699689, BF184304, BF185628, BE565642, BF244157, AW630212, AV655721, BE569124, BF131429, AA181455, AA315633, BF132852, BF031301, BF692251, BF668875, BF691021, BE779388, BF213025, AA186625, BF214411, BE568476, BE898217, BF664872, BF690925, BF031185, BF243347, BE958024, W79010, BE865509, BF674472, AA531308, AV714850, AA204997, BF665354, R80694, BF307415, BE567887, BF977109, BF106436, AV755841, BG025945, BE568064, BG029271, BG249184, BF240785, AV682318, AV681563, BE814385, BF214644, H22737, BE168154, BF575790, BF664562, BF670667, BF215015, AA085686, AA001470, BF750591, W55909, BF168394, W20245, BF030440, BF752526, BF693954, BE865807, AA297247, AV661606, AA298432, AA298665, R64278, BF104127, BE813635, BF131056, AA297858, BF184679, W93867, BF757214, AV757484, AV759869, AA298833, BF241923, H21844, H00199, R93867, N25143, AA088796,

HTLHN94	151	974667	1 - 1988	15 - 2002

Column values (accession number lists):

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AR072500, AR035974, AR035976, AR035978, AX006823, A58524, A58523, AF261962,
AF261963, A24783, A24782, I03343, AF261966, A81878, AR069650, AX047064, E14304,
AR096518, A27396, AX000085, AX042377, AR091518, AX042375, AX042373, N79828,
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HLDRT31	152	975754	1 - 697	15 - 711	AA884524, AI301704, and AI670928. AL534044, BE393397, AV683465, AV684627, AV689796, R95052, AL036390, AV660907, H56723, BF955572, T82240, R94378, H47159, AL045713, AV692841, H57229, T68625, R29170, H77694, AL046550, H67944, H67929, AW392670, BE695785, AW971745, AW804686, AL119319, AW604723, BE705906, AW858526, AW858525, AA119439, AW861944, U46347, AL119484, BE705905, AL119396, AL119391, AL119457, U46350, U46351, AL119324, AW577135, AW384394, AW861889, AW858455, AW372827, AL119401, AW363220, Z99396, AL119399, AL119443, AL134525, U46349, AL119497, AL134527, BF868684, AL119363, AL119444, AL119355, AL119483, AW877209, AL119522, AL039912, AL037205, U46341, U46346, AW604726, BF868687, AL119418, AL119335, AL134538, U46345, L11924, I36334, E12495, I84668, I36338, I36332, I36333, I36337, U37055, U28054, AL137798, AL021920, U28055, AB026436, AJ279014, AR066494, AX046357, AR060234, A81671, AR069079, AJ251859, AX030435, AR054110, AR043113, and AR080280.
HWLHW86	153	975771	1 - 1639	15 - 1653	AI718512, AU123914, AU126217, AI951481, AI745085, AI809713, AL525153, AU134222, AW188163, AI721217, AW007667, AW103479, AI828182, AW004850, AI686915, AI628538, AW070523, AI962963, AI697298, BG248600, AI471537, AI635101, AI889467, AI978632, AW860950, AW167961, AW474348, AW190605, BE674290, AI571882, AW129970, AI922593, AL047838, AI579919, AU126920, AW055284, BE869430, AI955311, AW242156, AW272287, AW873982, AI743468, AW513282, AW129586, AW571890, AU117740, AI624711, BE869709, BE870743, AI469222, AI625272, AI684079, AI679591, AW780155, AA424668, AI679333, AW473340, BE047040, AW475082, AI571037, AW029090, AI809712, AA130871, AA528645, AI459465, AW780425, AI540550, AV748643, AA528637, AI024785, AA406196, AU155306, AA411381, BE672486, BF028802, AW591592, AA577525, AI333612, AI687294, AI241214, AI299682, AW473388, BE177710, AW749077, AA483903, AA847578, AA424571, AI889684, AU149678, AA502398, AA580416, AA130926, AW862587, AW820899, AA835115, AI707527, AW075441, BE394676, AI216279, AI579897, AI886530, AI285185, BF038363, AI285353, AA908633, AL525154, AA724605, AI219442, AV748644, AI269213, AI038566, AW769100, BE843159, AW196292, AW361641, AW610090, AI824537, N92767, AA527850, AU144491, AI475347, BE168336, BF034328, AI078813, BE159920, AA443854, BF759422, AI074078, AA846205, AI803815, AI300799, AI689710, AA983659, AI289495, AI022819, AW473456, AA548485, AA554075, AA235136, AW193746, AI538623, W33013, AA158014, W32964, AW578996, AII23271, AA635113, AI567018, AA157929, AA526284, AA113218, W39707, AI702978, AA137210, AW971233, AI364251, AA493629, W15485, AA446644, W19420, W35400, BE720821, W37704, R81916, AA146623, BF672265, AI494071, AW132100, AW951883, AA055858, AI215543, AA158159, AI625623, AI284796, AW971035, AW372994, AA160230, AI362334, BE002725, BE843163, AA234829, AI890170,

1816

Clone	No.	ID			Accession Numbers
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HDPSE86	155	976207	1 - 1781	15 - 1795	BF974829, BE397549, BE397511, BE562264, BF976322, BE561928, BE396546, AW245133, AW001450, AV708281, AW248252, AW247758, AI918591, AI299148, AI741759, AV705891, BF327331, BE718012, BF764942, BF353438, AL583563, AI961410, AI679359, AW081424, AK865519, BG260187, AA807017, AF086713, AF086714, AL137462, AF262962, U31501, AK026830, and X52562.
HHFOE18	156	976216	1 - 1574	15 - 1588	AW964029, AA447232, BE155292, BE706821, W00562, AI752017, AA478880, BE072829, BE072835, H83253, AA377805, H53182, AW175670, AA295304, AA300104, C14702, AA431941, AI378520, AW444970, BF350693, AI127045, AI633683, AI345957, BF002061, AI033307, AI394583, BF349443, AI738683, AI677991, BE072831, AW207729, AI627661, AI274923, AW317022, AI983858, AA478623, AI751620, AI913309, and AL355492.
HHFNH27	157	976968	1 - 945	15 - 959	AL527962, AL517471, AL535489, AL538229, AA608734, AI760012, AW117939, AI038063, BE275287, BF966024, BF182712, BF794346, AV711147, AI992187, AI089408, BE271201, BE515144, BE785567, BG110602, BG028741, AW007641, BE735414, BE622727, AL538228, BE784154, BG108156, BG026353, AI444578, BE734452, BE277188, AW081275, BE562586, AL517470, BG034283, BG177569, BE270977, BF129032, BE730250, BE515135, BE745656, AI911660, AI762510, BE562179, AA573212, AW058227, BG252386, AW026216, BE781752, AV755448, BE780584, BE305350, BG036120, AI479604, BE976260, BE893200, AU126121, BE794959, AA482981, BG026476, BE277036, BE905103, AW167227, BG166075, AL525753, BE513556, BF237575, BE885910, BG028762, BE886434, BE734123, BF309611, BE736636, BE789073, BE878062, BF794656, BE275217, BG249366, AA595496, AA843894, BE612825, BE893060, BF686280, BE887584, BF237505, BF675994, BG113631, BE297840, BF307019,

HMMBZ81	158	977264	1 - 538	15 - 552	AU122814, BF342127, BE868928, BE963028, BF306753, AV755305, BF084929, AW873019, BE787083, AA102495, BF129033, BF965678, BF679311, BE736078, AA484847, BE252599, BE268328, AW021139, BG113023, AV757532, AI434970, BE395099, BE300956, BE268437, AW248649, AA148134, BE263792, AA564246, BG106885, BE378286, BE409300, BE539510, AW364114, BG169025, BF128966, BE397499, BE300638, BE906272, AW167837, AI523273, AI633224, AW188513, AL535488, AL525699, AI204666, AW512941, BE743078, AI027124, BF308821, BE613387, BE788345, BG256684, BE514424, AV681767, BE884744, BE565632, BE276742, BF974229, AA486523, BF185882, AA166855, AL527961, BE271243, AI671081, BF116147, AW516517, AV698198, BE295099, AI572593, BF216863, BE743737, AA486521, AA847553, BE264509, BE778919, N39028, AV698205, BE296288, AI149325, BF684704, AW304719, AA908430, AW630040, AW873419, BE395711, BE786296, AI702096, AV758156, BF030227, AI907636, BE727628, BG107645, BE439984, BE272016, AI735493, AI052028, AA976287, AI220686, BF891229, AU128718, BE389832, AI640723, BF210853, BG230809, AA485916, AI926630, AW515972, AA485917, BF971948, AI890625, AV727847, BF307745, AW302543, BF973342, BE966702, BF185214, BE866342, AA165420, AA860308, AI093142, AI685983, BE735516, AI432974, AW149055, AA954903, BE208455, AA948412, AA528110, AW103530, BF679571, AI925307, BF185263, AI200011, AA804159, BF205661, AA865402, BE393349, AA988428, AI784413, AA420759, AA609843, AW305063, AA664241, AW249084, BF304780, BE537856, AV697099, BF305432, AW411421, BF669093, BF027024, AI828699, AV717083, BG167697, AA581306, BG231290, BE786085, BF194802, AA971093, AA836793, AI092573, BF674869, AF054187, X80909, AJ278883, AC002994, U22151, AP001208, U48364, U48363, AL138717, AL355707, AC006160, AX014112, AX015401, T53676, T55906, T90594, T93775, R07734, R40067, R75978, H70091, H82195, N48219, N99411, W07071, W17213, W24422, AA025972, AA101054, AA151491, AA165123, AA173462, AA226280, AA420620, AA581277, AA657477, AA664557, AA742717, AI001127, AI002459, AA095490, AA648154, AA626408, AA670063, AA758894, AA853887, AI123098, Z28479, Z28824, D25876, D30821, AA701908, AI434582, AI185181, AI694837, AI744149, and AI813365.
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HSLGF32	159	977704	1 - 1585	15 - 1599	BE784734, BF528372, AW664953, AW294691, BF670655, AA411625, AA464785, AA971619, AA909175, AA406575, AA256188, AA486336, AI868650, AW276335, AW271701, AI908352, AA488056, R93249, AI864543, T84938, AI282858, H95668, AA256150, R16409, R12671, BF588476, AI797610, T91956, BE622938, AL042508, BF755924, AL035669, and AL133063.
HEEAH23	160	978593	1 - 427	15 - 441	AL529051, BG168572, AV687207, AV247426, BE249849, AK022736, AB014549, AC008132, AC023491, AC007981, AC023490, AC007957, AC011718, AC009288, AP000552, and AC008079.
HODFU73	161	978812	1 - 771	15 - 785	AI337855, AI290624, BE613007, AW190836, AA036954, AW392096, AW452245, BF039005, BF699641, N95243, T25091, AA036998, AI648608, R47204, AC007392, U85707, U33630, and U33629.
HNBUA49	162	978998	1 - 1620	15 - 1634	AI871477, AL520825, AL525683, BF686227, AL040660, AI049979, BE746500, BG260309, AI051966, AL043088, BF792585, AL041341, BE249840, AI760387, BE273020, BF690244, AA772213, AW440407, AI860755, BF663608, AU118417, BG169576, BE873422, BE378917, AI192298, AI818417, BE293451, AI676150, AI828421, AI827007, AW071445, BE315277, BE293812, AI701967, AI690912, AW151086, AW167306, BE293738, BE250330, BE250827, BF526581, BF972183, AW795577, AW474833, BE221350, AA837413, BE858496, AW071494, AW276436, BE260699, AW577804, BE304919, BE222850, AW673333,

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BF930542, BF382084, AV653600, AA210741, AU158743, BE080390, AU152148, AW769926,
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AB038698, AL050277, X87582, AK024992, U49908, AK024546, AF079765, AF116654,
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1820

| HVVDU73 | 163 | 979346 | 1 - 2290 | 15 - 2304 | AF130099, AF183393, AP001731, AF022363, AL137480, AL122110, AK024524, AK025967, AF125948, AK025375, AF119843, AB025103, AF097996, AF069506, AK024538, AF026124, AL137533, E00617, E00717, E00778, AL137479, AK026649, AK025119, AF116682, AK026593, AL353802, AB048954, AF091084, I89931, AL049466, AK025092, AL080127, AC006840, AL110159, U75932, AR087170, AL357195, AL357170, AF109905, AF185614, AF110520, AL080060, AL080074, I48979, M96857, AF262032, AK026927, AL096744, AX015915, AL353935, AL122049, AK026086, AX019230, AL110296, AF113222, AL137527, AC004987, AF104032, AF228740, AF116639, AF079763, AF113019, AL161628, AC020956, AK024588, AL049283, X62580, AF143723, AF109906, AL133665, AK027146, AL137529, AK025708, A08912, S77771, AL117432, AL442083, AR038854, AL121656, AL162004, AR038969, AL110196, X59414, AF130105, AL117460, AK025312, AL050149, D16301, AR001434, AF099901, AF056191, AR034821, AX019229, S78214, AF116631, AC026888, AK026592, AR013797, AF207750, AF100931, AF113677, AF119899, AK026480, AF217966, AF087943, AC024247, Y10936, AF225424, A76335, U90884, AL133081, AK026613, AL359601, AF130087, AF177401, AL096720, AC007298, AL080126, AF113691, AL049430, AL389939, AF230496, AR011880, A18788, AL133098, AK024594, AP000020, AP000208, AP000130, AK027113, A18777, AL078630, E05822, AL133080, AL390154, AC006994, A08908, AK025084, AL049452, U87620, AC009079, AF130077, AF138861, AP000247, T67169, R20816, R24658, R25161, R40914, R41435, R73140, R81373, R81372, H06889, H46823, H54818, H54871, H81473, H94154, N32627, N46428, N48932, W01455, W06926, AA018684, AA025964, AA026187, AA054130, AA055045, AA055125, AA065166, AA065167, AA100667, AA179767, AA180497, AA195448, AA419052, AA423810, AA503664, AA505153, AA523741, AA553985, AA564040, AA593108, AA622976, AA640554, AA809927, N88176, C21410, AA650018, AA449101, AA653215, AA852239, AA854546, Z17869, AI049748, D19884, T17286, AI364637, AI453514, AI127010, AI539032, AI611219, AI589831, AI524665, AI686352, AI828866, AI869810, AI911878, AI933456, AI934178, AW009720, AW051077, AW071728, AW074449, AW151358, AW197391, AW272974, and AW297704.

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HHESX72	164	979468	1-467	15-481	BF797761, AU130033, BG258778, AU119794, AW965889, BG028456, BF970462, AV728480, AL522193, AA315962, BE786036, AW960384, AV715388, AU131704, BE695281, AU132895, BF219071, AL536015, BF184112, AU129283, BE729622, BF696698, BG167039, BF034416, BE695309, BE265086, AA319546, H97758, BE544565, W90369, BF332962, AW408349, AI078747, N59486, AA359114, R09724, AW242801, AI765280, AI990488, BE244651, H22047, AA085546, AA091085, AL521415, AI858033, BF111619, BF061858, AA776634, AA359816, N56221, AW602190, AI040358, AI248524, BF792722, T18889, T70782, AW057675, T18872, BF906431, AI633892, AW205883, AW872943, AK023053, AK021905, AC005189, AK023007, AK001665, and AL049758.
HOCPY88	165	979547	1-1395	15-1409	AW004023, BF690205, BF791885, BG029479, BF000545, BE047000, AW977945, AA909986, AU151274, BF512375, AU147671, BE350857, AW467591, AA142943, AA811324, AA150646, AW468491, BE672409, AI301026, BF689816, AW845190, BE392310, AW514680, AI984280, BE140523, BF229544, U53081, D20997, AC006544, AC003065, AC005033, AF035299, U70987, AF180527, and AF229166.
HOGDC64	166	979666	1-1794	15-1808	AA868550, AL530411, BG254611, AW954131, AI201166, AW193909, BG151533, AW084462, BF791908, BE260095, AI922273, AA523858, BG260049, AA781100, AW105220, AA596049, AW005327, AI214604, BF984366, AI802642, AL524639, AW090564, AI567735, AA897529, AA193192, AA629069, AU147852, BF979856, AA858423, AA425360, BG149247, AA908794, AA778624, AI686401, AA393835, N72685, AA868129, AA923361, AU148101, AW183908, BE206598, AA075361, AA580324, BF743368, AI357135, AA926834, BE670517, AI803714, BF197076, AI284934, BG116362, AW983892, AI284936, AU154733, AI130025, AA758676, AA907260, AA311449, AI077310, AI298616, AA706885, AA969247, AI457308, BE045930, BF743297, AI418560, BE219395, AL043460, AA861359, AI720212, AI342423, AA468338, AI936296, AA075362, AA454947, AI458647, R37961, AW246825, AA136701, AW607431, BF743315, AA834427, AI635130, AA167347, BG164125, AA431980, AI264546, BE439633, N68585, AA548507, AA973365, AA053135, AI659588, AI925822, AA425566, AA431965, AA176535, AA748183, AW750653, AA989525, BF223350, F31676, BE253169, AA468339, AW950325, N46268, AA769323, AI985073, AA994254, AW470425, RS3597, AI621110, Z24883, AI285063, W81103, AW090765, BF957740, AW628661, AW592166, BF767591, AI703044, AA385560, AI860560, AI202413, F30676, F32050, AA564380,

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HSIEA14	167	980139	1 - 774	15 - 788	AW301736, AL042667, AL042670, AV695478, AW328202, AW238341, AI538491, AA569494, AA572983, W42588, AI278972, AL120141, AI821382, BE042006, AI307201, AA501461, AA837597, AA514450, AV761433, AI753969, H68343, BE139139, AI250552, AV648653, AI284543, AW020612, AI689198, AV656063, AW613448, AI005613, BF917473, AI254770, AI744830, AI820534, BG030789, AI251284, AI251034, AI251203, AI223626, AI249853, AA526099, AW023515, BE138387, AA602105, AI798407, AI439393, AI690497, BE169870, AI692245, AL133519, Z83819, AC002350, AC021036, AL031733, AP001706, AC005844, AF017104, AL157372, AL117341, AP000073, Z84487, AC007282, AC011742, AL022336, AC019106, AC008011, AF049895, AL109797, AP001710, AL160231, AP001759, AL137073, AL391114, AL049713, AL133454, AP001683, AC058791, AP000104, AC007880, Z93341, AC011904, AP001714, AC008738, AC016689, AC008543, AC009225, AL024507, AB000882, AC006449, U96629, AP000344, AC007225, Z98946, AL050333, AL049838, AL121782, AC004491, AL009181, AL035249, AC005064, AL121825, AF205588, AC024082, AC009060, AC005663, AL121949, AC007546, AF107885, AP002530, AC011500, AL137060, AC005969, AC005216, AL031848, AC005291, AL133453, AL353802, AL078591, Z98742, AC002418, AC004386, AP001728, AC013429, AC018513, Z83843, AC002303, AL139826, AC005703, AC008008, AC003042, AL033381, AC005332, AC007938, AL121872, AC006121, AL138755, AC073574, AC011311, AL139109, AE000658, AP001725, AL138828, AC009236, AF196971, AC002429, AC009016, AC012156, AL157791, AC004847, AL109743, AC006160, AP001712, AC007486, AL157413, AC005352, AL109923, AP000692, AC005386, AC004977, AL117333, AL136979, AL050317, AC000004, AJ229041, AL121878, AC008267, AC025442, AL008732, AC009501, AC007690, AC008750, AL359704, AL031681, AF027390, AC004743, AL008732, AC009501, AC007690, AC005562, AC078889, AL355886, AC009238, AC009236, AF280107, AL121852, AC009470, AC007773, AP000352, AL031685, AL136365, AC005821, AP001720, AC008898, AL356379, AL049760, AL049776, AL441887, AC010219, AC003992, AL138752, AC012351, AC012309, AL080317, AC002381, AL035458, AL031289, AC003662, AC036103, AC007312, AL445687, AC006120, AC024600, AF241726, AC005358, U80017, AC004859, AL133153, AC027689, AC005069, AC007376, AC009953, AC018684,

HSPSY43	168	980269	1 - 2040	15 - 2054	AC010363, AC007868, AC004833, AC004000, AL031427, AC003108, AC010328, AL132777, AC007542, AC006455, AL157827, AC006001, AC007637, AC007262, AF015720, AC006996, U91323, AL158167, AC004745, AC074331, AL121585, AC006372, AC009455, AF190464, AL035555, AC022493, AC003029, Z84474, AC016543, AC027644, AP001660, AC008518, AL391259, AL049834, AL121652, AJ239323, AL163853, AC002289, AC005488, AC004887, AC005690, AC007000, and Z98950.

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HSXBH24	169	981029	1 - 2428	15 - 2442	AI052508, BE048691, M79221, AW338514, AI262660, AA953663, AV726620, BF752825, AA813125, and AI373503.
HOFAE61	170	981108	1 - 1219	15 - 1233	BG033389, AI393309, AW005351, AI807923, AW960185, AW166132, AW664889, AA194090, AI916382, AI799077, AW328387, AW340414, AW960398, AI131240, AI188081, AW300307, BF131508, AA855025, AA287690, AI694793, AI138878, AI362805, AI198516, AI131388, AA287658, AW139698, BE551852, AA934428, AI701814, BF056959, AI824988, AI680753, AW328388, AA308513, AI654495, AA304908, AI955554, AV741520, BF111228.

HCFOF82	171	981272	1 - 1549	15 - 1563	BE673760, BE673856, AW087574, AI630546, AA062563, AI969069, AI309588, AI266070, AA987983, AI675830, AA960973, R01958, AA973643, AI990363, BE671742, AI741149, AW138983, BF874358, BG057469, Z63217, Z62190, and Z54706.
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HOCMT79	172	981309	1 - 1580	15 - 1594	BE798445, BE304432, BE731636, BE897199, BG255861, BF979006, BE812965, BE728469, BF128024, BE263640, BE727056, BF358932, BE206746, BF942861, BE340525, BF311992, AW362926, R67305, T33893, AW945345, Z46204, AA324589, AW965323, AW965323, AA324404, T80030, H50913, AA281511, AA333367, BF381111, BE816128, T08567, BF991518, R18797, AA332977, AA687499, BF946438, BF822854, AA223464, BE796302, BF917604, AW392506, AW601333, AW372325, AW601316, AW601334, AW372336, AW392504, AW392498, AW372308, AW372323, AW601317, BF725792, AR087892, U32575, and AF055006.
HKAEI03	173	981319	1 - 452	15 - 466	BF342305, BF972034, AV702899, BG250659, BE875013, BG255188, AW732994, BF969129, BF973001, BF130310, BE779851, BE268549, BE783925, BE272577, BG024907, BF127762, BE784922, AI751567, AI138643, BG027985, AI564787, AI131276, AA010288, BE464595, BE858428, AI810680, BE256739, BF431981, AI312112, AI659460, BF964885, BF038601, AW614586, AI918066, AI421103, AA159852, BG036944, AA143643, AW131612, AA577070, BE170902, AW418672, F29120, AI885777, AI540181, AI889585, F36716, AB037839, and AF006043.
HOCPO31	174	981593	1 - 1686	15 - 1700	BF344523, BG120897, AI928341, AW026244, AL119974, AW003141, AI953528, AW004077, AI803375, AW001409, AA716616, AA425741, AA677488, AW594550, AI193181, BE349215, AW795298, AI262269, AW297973, AW592480, AI042286, AI436208, AI126751, AI149281, AI167937, AI187153, BG006418, AA885372, N53016, AI962663, AI143577, AW242268, AI049776, BE677119, AI818483, AI272839, AA595397, AI032066, N78497, AI742227, AU134204, AA938952, BE041590, N73656, H00225, AI187185, AI986359, AW152033, AI032073, AI302095, R77880, AW128839, AW594571, R94775, AA806624, H24559, R64451, T09483, R94950, AW957178, AI252768, H17531, AW193712, AA057787, BF061972, AW296092, AI435183, H00177, AW340042, AA535123, AW079257, AA834425, AA595382, AW662791, AI949751, AI968910, AI806704, AI954639, R34244, H21209, AA047604, R94693, F10899, R35571, H22912, AA425233, AA931668, R63839, R39530, T77481, BF357906, AW401504, R55754, BG058398, AI802542, AI440239, BG110684, BG179993, AI869367, BF527014, BE048026, BF725868, AL036631, AV715331, AW071417, AI500077, AI269696, AV650703, AV682479, AI758437, AW087445, AV715263, BF868489, AW071349,

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HAOTG88	175	981606	1 - 807	15 - 821	AK026744, AF017152, AF242189, AF116649, AL353940, AK000618, AF130110, AK026608, AK026592, AF314091, AF091084, AK026504, AF177336, AK026784, AK026927, AL122110, X63574, X82434, AK027096, AF116682, AL117435, AF017437, AK026959, AF111851, AB048954, AK026532, AK026647, AF125948, AK000652, AL049464, AX026824, AX026823, A58524, A58523, AL133093, AK026583, AL117583, AL137550, AF079765, AJ238278, AK025772, AL359615, AL137283, AL050138, AK024524, X72889, AF175983, AK026353, AK000323, U91329, E07361, X70685, E02349, U00763, AB034701, AF119871, AK000432, AF097996, AF260566, AK025967, AL049382, AK027204, AL122098, AL049300, A77033, A77035, AL049430, A08909, Z82022, A12297, AK026086, U35846, AK025391, AK025414, AK027164, AK000647, AF118094, AF183393, X65873, AK026528, AB052200, AK026947, AF130077, AF116610, I33392, AF116654, AK026480, AF260436, and AK025484.
HVCAH21	176	981768	1 - 746	15 - 760	BF316070, BF568141, AV758470, BF527619, BE314804, BF969586, BE409471, BE410535, AV733489, BE261170, AW157185, AI928869, BF304497, AW024568, BF971396, BF310503, BE296966, BF980412, BE408549, BE884399, BE386397, AI907018, AW440484, AA883920, BE793077, BE794471, BF206989, BE877585, AA496679, AI378856, BF311371, AI859291, BE350719, BE895663, BE885969, BE315547, BF241672, AI817825, BE793139, BF210205, BF216772, BE733918, BE897650, BE312906, BE905785, BE879978, AW516581, BE382725, BF038020, BF026271, AI624337, AW732541, AW674196, BE262376, BF237436, AV710278, AV740622, BE899283, BF206520, BE276874, BF206851, BF237515, BF243039, BE313650, AI024995, AI174779, AI572642, AW163157, AW651789, AW732534, BF125793, AI025126, AI474128, AW474610, BE547663, BE831015, AA187250, AA877228, AI267915, AA886988, AV733930, AA182921, AA642996, AA306692, BFI26019, AV741980, AA075599, BE263229, AA181154, BE831027, AV756250, BE205781, AL526932, BG118384, AA075346, AI929036, BF734890, AI400538, AA316049, AA181153, AA526075, AA315701, BE709954, AA098806, AV727129, AA130645, BE218789, AI421479, AA482798, AI144352, AW022366, BE871748, AA45I691, F36272, AA722490, AI015274, AI860627, BF767068, AI476031, AA196855, AI076945, AA601896, AA603149, AA037796, BE792238, BF674456, AI266715, BE932205, N53005, AA307818, AV727405, AA125759, BE710240, AI194072, AV764534, AA210871, AA130034, T74180, AI985806, BE709957, AV735365, AA070953, AA714540, AA453235, AV744480, BF030579, AA130033, BF239974, AA443652, AA385659, AW583010, AW675307, BF966331, N52289, BE045155, AA130615, AW277116, BE645844, AA912073, BF184415, AA856876, AA478103, AW276117, AL527098, F25881, BG117430, AA065190, BG028557, H49982, BE005862, AA187382, AW270600, F24478, BE792009, AA076185, BF091615, AW371216, AA725739, AA878729, N30376, AA365073, AA602423, BF091064, F24829, AA484666, BE870423, AA885827, AA745043, BF091625, AA156093, BE044822, BF375830, AA398035, F27966, F34663, AA861214, AA085547, AA371299, AA992886,

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HFPCK56	177	981812	1 - 1934	15 - 1948	BE739833, AV751551, BE539375, BE879961, AA012925, AI690904, AA418407, AW028084, BF061035, AI949671, BE219361, AA449061, AI955218, AA772167, AW771435, AI305287, BG056669, BG122658, AI039957, AI796800, AI421026, AW952787, AI689738, BE857334, BE797251, AW373177, AA037175, AI680796, BF001323, AI360089, BE440106, BF438532, AI568970, BF223290, AW299760, AI948837, AA418504, AA410416, AA976077, AI925315, N56916, AI744545, AI186166, BF344446, BE545371, AI801467, AI560863, AI307790, AI620925, AI685502, AA931566, AW589991, AW373172, AI094972, H22670, N44951, AW026324, AA772572, AI049895, AA449773, BE876258, N39575, W27237, BE878083, N33168, AA469378, AW028003, AA402063, AI276817, AW803238, AA351859, AA861181, AA938412, AW079992, AI311559, BF907727, H96974, AI888644, AA151221, AA351860, AW139343, AW130580, W32509, AA937530, H22687, AI813495, AA410273, AA993422, AA687549, BF941191, AI143750, W27206, AW373182, AA340324, AA044269, AI860157, AA151220, AI370443, R48542, R53630, H14486, AI271975, AI140110, AW593928, R12193, AW275061, W93548, AA321771, AI611136, W32606, T66931, BF941785, AA758353, AI581671, R48627, AA398924, AA349145, AW138501, BF527602, R96451, AW515323, AI674456, N59828, AI918973, R96452, AA991280, AI985395, AI687472, AI268792, AA338948, BF747204, AI280425, AI370507, AA991278, H27505, AA142905, R12929, AA410417, AI284737, T83253, W27541, AA364215, BE719110, AI880036, R62328, R51963, H27578, T66932, AI961564, D54538, AA847693, AA338947, BE538557, T49336, AI360057, BE939130, AI351186, BF818515, H04226, AA044169, H02921, AA026556, AA069380, AW138557, R62327, AW118418, AI198091, W96350, AI424187, R39917, AI868856, T10481, BE964453, BF507638, AA847337, BF735896, N72776, T90723, AI873143, AI682149, AI419753, AI472343, AI394598, AA436364, AA652885, T49337, BE002485, N46721, BE620017, BE622776, AI335238, AI810464, AI927142, AA069327, BE787445, AI078649, BF987031, T11055, AI564318, AX015375, AL162074, AB042237, and AF099664.
HAOSJ58	178	981859	1 - 1131	15 - 1145	AL515972, AW029556, AA004208, BE883613, AW015902, BF802700, BF666138, AI917287,

| HOPJT48 | 179 | 981862 | 1 - 336 | 15 - 350 | AU149521, AA007410, BF791634, AA251650, AV716889, AU153411, AU151309, BF795834, AW474709, AW967661, AI247962, W58247, AI241375, AW594337, AA251538, AI492247, AI598036, N72095, W58248, AA603659, BF804913, AI431332, AA424023, AV744248, AI656462, AA664303, AW590631, AW592235, N23125, BG115061, AW105622, BF056545, AI913221, BG180121, AA868810, AA679595, AI373555, AU149339, AI380841, AW129016, Z39592, W02366, AA189143, AA777004, F02874, BE926666, AW731774, AA768164, BG122759, BE501179, N73304, BE926735, AI521225, BF737731, AA394252, AA424100, AI963833, AI282264, BG259121, AI476066, AK000638, AK024266, AF071592, AF277375, AF241316, AF179308, AI271784, AK022717, and AL133073. |
| | | | | | F20667, AL514627, AL036146, AL513553, AL513597, AL513907, AL514919, AL513999, AL513631, AL514015, AL513911, AL514791, AV755668, AL514691, AL513977, BE965014, AI475817, AL513951, AL515191, AI469532, AL514087, AL513693, AL514867, AW085799, AI349772, AW074869, BE887488, BG109270, AL513713, BF793187, AL514063, AI500077, AL119748, AL514473, AI696846, AL514983, AI567632, BG112879, AL043326, AI702406, BE047952, BF793324, AI888953, BG110241, AI349645, AL515413, AW071349, AW071417, BF970446, AI537303, AV681618, AI349645, AL040243, BF817926, AI432969, AI800453, AI800433, BF882343, BG058398, BG179993, AW169653, AV682222, AV681630, AI521012, AV682252, BE969709, BG257535, AW169671, AW827249, BF883916, AI340582, AW301409, BG110684, BG260037, BG180996, AL045500, BE965891, AL513577, AL047763, BF816811, AW274192, AI620284, AI758437, BF812933, BG058208, BE048071, AI637584, AI349004, AI536685, AI568870, AI499463, AI249257, AI250293, BF970162, BF724691, AV756150, AL121365, AI702433, AI433157, AI224992, BE018334, AI580190, AI590128, AI868831, AW103371, BF792469, AW104724, AI682841, AW087445, BE781369, AI633419, AI538716, BE966388, AI498579, BF039003, AI866002, AI802542, AI433976, AV756328, AV729890, BF795712, AV709517, AI445025, AI564719, BF971016, AI349933, BG031815, AW238730, BE964812, BE964741, AI348897, BG168696, AV717299, AI697137, BG178488, AI497733, AW999049, AL036802, AW026882, AL044207, BG110517, BE964700, AI866608, AW162071, AI281773, BF812961, BF527014, AI539771, AL036396, AL036403, BE048081, AL135661, AI281779, AI570384, AI857296, AV757737, AI678302, BG151247, AW813006, AI269696, BF817392, BF343172, AV711924, AW148320, BF340031, AI275175, AI281762, AV756703, AL047041, AL041772, BE963035, AI064830, AW074993, AI567351, AL038605, AI349614, BG164371, BF726322, BG032208, AW089572, BG260881, AL038778, AW268253, AI282281, AI312152, AW075351, AV758209, AI345735, AI610645, BE047852, AL514097, AA640779, BE876033, AI349937, BE172767, AA613907, AI619502, AI500659, BE964876, AV682266, BG252929, AV681759, AW068845, BE909398, AL513943, AA508692, BE047863, BE904178, BF885675, AI620868, AV655645, BE877769, AL515019, AI636445, AI340519, BG178809, BG035511, AW148716, AV756342, AL514793, AI273142, BE965556, AI818683, |

HCFAV61	180	981914	1 - 1221	15 - 1235	AI580984, AV757865, BG250190, AV710479, BG259801, AL047042, AI754897, BF793644, BF107577, AI569616, BG114104, BE967104, AV758668, BG180034, AV757362, BF812438, AL514025, BG029399, AI524671, AL515041, AV682567, AV703695, BG179633, BG113662, ALI19791, AI597750, AI572787, AL161802, I48979, AF116631, I89947, AF116646, AF116602, AF097996, AF090901, AB047615, AL117457, AR079032, AF078844, I89931, AL050116, I48978, AF116691, S78214, AF118064, AF130105, AF116644, AL442082, AF116639, AF090943, X84990, AF017152, AF138861, S68736, AF130082, AL050393, AR059958, AL110221, AF113676, A93016, AF118070, AL133640, AF090903, AL157431, AF090900, AF090934, AL050146, AF106862, AF104032, AX046603, AB048964, AF113691, AF218014, AF130059, AF090896, AF130075, AB049758, AF111847, AF119878, AK025339, ALI38755, AL050108, A08916, AL133606, AL359596, AL049452, AL080060, AB048953, AL390167, AB041801, AK025084, AL389978, AF130092, AF130104, AL137527, AL162083, AF113013, AL133016, AF113689, AL050075, AL162006, AB019565, AK026608, A08913, AF116688, AL110196, AK000212, AL359601, AL133075, AL159988, AF125949, AL442072, AL080137, U42766, AX019230, A242859, AL133075, L31396, L31397, AL117460, AF113677, Y16645, AL049938, AL122050, AL162006, AX019466, AX019229, AF119875, AR011880, AK026855, AK026045, AL096744, AF113019, AL049466, AF079765, AL133557, AF146568, AL133080, E07108, AL049314, AK025958, AL080124, AF119899, AL122121, AK026542, AK025772, AF125948, AL359618, AF119899, AJ122123, AC027121, X63574, AL133093, ALI17394, AF219137, AL122093, AL122123, AJ238278, AK000618, U91329, E03348, AI000937, AL137557, AL133565, AK026647, AL137459, AK000618, U91329, E03348, AK026583, AL117583, AK026784, AF116649, AX006092, AF158248, AK025092, AB052191, AR087170, AK027096, AF113699, AK026744, AL389982, Y11254, AL359615, AL359941, AF091084, AK000137, AK026592, AK027113, AL137550, AF314091, X82434, AF207829, AF111851, AK000445, AK026959, AK026452, AL353940, AF017437, AK024538, E07361, A65341, and AK026528.
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| HPDWN44 | 181 | 981956 | 1 - 934 | 15 - 948 | and AK000541. | BE742303, BE741533, BE746369, AI633237, BE563341, BE563526, BE612816, BF035914, BE880068, BE563212, BF665918, BE880096, BF970136, BE880701, AL529261, BF037170, BE315481, BF316680, AI017752, BE896668, AA431844, AA628903, BE880590, AV710748, AI525834, AV716869, AV733974, BE567737, BF674943, AV71398I, AI979057, BF698464, AL529260, AW514732, BF033091, BF679768, AV711087, AV716715, BF540803, BF675525, AV713390, AI935983, BF679768, AA075421, BE613381, AA156298, BF673731, AW088688, BE389957, AV735167, BE389745, AA187073, AW47497I, AV740643, BF69III6, AI135571, BF195619, AI684301, BF677505, AL525452, BE042822, BE709657, AW936512, AW474519, AA992934, AW189041, BE042854, AI98411I, BE276272, BE393478, AW474473, BE388363, AW131622, AV734097, AW196629, AI913944, AA427596, AA187024, N30130, BF217503, D8227I, AI191868, BG235916, N39749, AI923021, BG112356, AA075422, BG259987, AW404378, BE813I77, AW149049, AW369486, AV726476, AW369495, AA442647, AA669065, AI367852, AI633284, AU132643, AA081139, AI554354, AW951432, AI560878, N25849, AI416993, BE176663, AW074176, AA446705, AA496549, AW512858, BF094963, AW99I489, AW991644, BE813140, AA315748, AA878888, N23559, W19707, AA729416, AA621292, BE567961, N36654, AA069715, BE568443, AA493626, AA069692, AW938005, AI187152, BF732743, BE176346, AI185034, AW166402, AA593797, AW385485, AAI186648, AW021630, AA437347, AI221791, AA630449, AW937966, AA081278, BE122891, AA436888, BG167398, AA156984, AI312688, BE875189, AA316034, AA316517, AA479768, AA181039, AV733234, W52260, BE176396, BG012035, AV750759, AW264168, N24368, AA631420, AI923459, AW363902, AV703750, AI198050, R98410, BE179786, N59644, AW069390, AL047606, N44880, AI686995, AI090375, AL525651, AW796539, AV654997, AA187522, AA229717, AA429684, H16005, AW994708, N35742, AA628994, AA630441, AA977956, AW798571, AA847636, AI074223, AI034134, AA583504, AA782407, AI291901, BE710000, AV711820, N77857, AA993826, BE536583, AI568185, AI434356, AA169685, H53260, W05819, AI367001, AA757584, AA156678, AA317301, AW582891, N42163, AW378113, AA230074, AA335935, AV651342, AI719389, AV712994, AW378105, BE716145, AA335859, BE707628, AW378118, AA281403, AI312689, AA581804, AA432128, AA335879, AA890245, N35687, AI674105, T50033, AI085540, BE697023, C17051, AA384518, AW378101, T93581, AA912450, AA361889, BE840484, BE169354, BE707639, AA446578, N44791, AI687083, H85400, AA923554, BF091266, BE840494, T86063, AA641500, R66319, AC005479, X67698, U25748, AI8921, X78134, S77411, X85799, AL133076, AL122101, AI133655, AL133020, AL133053, AL133074, AL133049, AX040958, AX041002, AX040974, U30290, E19998, AR015970, M37278, AX030435, AX015526, AFI26531, Z69719, AF002985, AR055519, AR034821, S56141, T92154, T93222, T94671, T89488, T89660, T83699, T85048, R01007, R25764, R33756, R39758, R62496, R68141, |

				R74261, H15768, H42468, H42681, H43449, H60096, H69969, H71589, H85394, H98245, N28549, N40132, N40844, N54906, N78197, N99645, W32944, W38819, W46910, W56106, AA025797, AA031691, AA035536, AA130026, AA149910, AA157483, AA281356, AA532481, AA603556, AA610276, AA617732, AA627954, AA837359, N85557, AA431114, AA708116, AA725139, AA845939, T11351, AI244072, AI308158, AI220771, AI632782, AI859690, AI811046, AI950900, AW025993, and AW055299.	
182	982032	1 - 1118	15 - 1132	AL536886, AL519771, BE903122, BE906714, BF981167, AL529998, BF980868, BG110444, BE906350, BG026745, BE733132, BG118469, BE908645, BE281012, BF527761, AL529999, BF204049, BF527895, BF338699, BF527959, BE896386, BF346362, BG179270, AW373882, BG121683, BE902906, BF339518, BF528481, BE795781, BE797253, BE264544, BE793598, BE799039, BE395716, BE904642, BE798297, BF129057, BE909217, BE797464, BE791245, BE798589, BF317485, AW577397, BE259895, BF337918, BE798842, AI366141, BF345330, BE793570, BE254266, BE689031, BE387799, W48799, AW249723, BE736728, AA121648, BF915406, W79098, BF058087, BF434845, BE266716, AW245243, BE275433, AW965510, AI420864, BE501218, AW958156, N30494, AW166500, BE274757, BE562577, AA523509, W74502, AI421445, BE274734, BE542936, AA076659, AA309806, AA602391, AA947286, BG056181, AW148931, BF827786, C14268, N99361, AI367349, BE266342, N59225, AA335673, AW518636, BF750898, AL120945, AW137008, AI936982, AI916893, AA335414, AA336127, BF338054, AI769470, AI337000, AW206563, W31030, AI419527, AA371822, AW006577, N98776, AA335239, N76692, BE645990, C14269, AI572122, AI368200, AA641497, AI634762, BE150214, AI684498, AA827390, AI217398, BE150209, W49625, AI081813, AW206959, AW607363, BE743774, AA725340, AA079566, AI672387, N34422, AI766926, AA478173, N48657, T11147, AI365401, BF221855, AI950175, AI813446, BE466923, AI382536, AI382559, AA659150, AI420810, AW900866, AA357437, AI565511, AA478017, AI800023, BE673470, AW615779, AA773507, AI362447, AI242987, AW183593, BE673583, AI399691, AI738446, AI243140, AI659508, H16643, BF438348, AI651868, AI805041, AI568339, AI823968, AW451053, AW137813, AI927588, AA631086, AI699620, AA077819, and L07392.	HOVTY54
183	982042	1 - 870	15 - 884	BE741661, BE733571, BF685462, BF984053, BE745150, AV686105, BE792465, BE901550, BE515104, BE884515, BG033955, AI052336, BE312803, BG178966, BF794342, BG036584, BE544000, BE745597, BF337890, BF038967, BE264172, AI831045, BE874094, BE910663, BE733667, BE264374, AW170205, BE544180, BF127998, AI309846, BE539160, AW160727, BE787749, BE787345, BE271779, BF667331, BG257671, AW157143, AW440255, BF205294, BF183127, AW583332, BE784901, BF671774, BF115955, AI857442, AW583701, AI560800, AA582176, BF244048, AI824142, AA485962, AW025617, AW516053, BF204148, AW439939, BE786757, BF667242, BE278628, BF130358, BF030011, AA854126, BF219377, BE271039, BE855730, AW513598, BE297318, AW439387, AW162229, BE297859,	HLDOG74

| HE8MM52 | 184 | 982197 | 1 - 2789 | 15 - 2803 | BE280579, BF979190, BF245667, AW118054, AA635192, AW169142, AW674748, BF692567, BE281362, BE019807, AA551363, AI446101, AA617816, AA661621, AW950636, AW515901, AW166234, AW516869, AW173721, AA147816, BF213463, AI624267, BF668293, AA843831, AA491461, BE281598, AA046960, AW080229, BE207118, BE383593, BE269269, BE301062, AA284529, BF033039, AA147964, AA779189, AA886801, AU151184, BE541264, AW905878, AA709317, BF185131, T27878, AA489885, AA046940, AI200718, BE501607, AA977837, AA287072, BE295551, AA308390, AW163112, BF687680, AW675350, AA917888, AA315960, AI149590, AA599391, BF697377, BF218545, AA662287, AA009788, AI929782, AV744141, AA676677, AA314717, AA961410, AI878965, AA281634, AI688201, BF698890, AA954211, AI362751, AA929069, BF196313, AI193083, BE207789, AV736143, AI083792, AA772752, AA659107, AA983589, AV742172, AI138509, BF184787, AI040249, AW732855, AI191696, N92863, AI151496, AA687717, AI299551, AA070997, AA857870, AA503718, AV735528, AA190930, BF090320, AW058118, BE206366, AA070618, AA503128, AI393887, N74980, AA773467, AA855028, AA493807, AA650564, AA503135, AA503108, AI393887, N74980, AA773467, AA855028, AA493807, AA650564, AA559223, AA190701, R99319, AA483970, BF229552, AV742823, AA658476, AV741392, AA307151, AI826883, F36699, AA489572, W32721, AI143806, AA190460, AA812381, BF104071, T79922, AA281695, AI194047, AA502951, AA676762, F29670, F36691, AI634447, AW005735, AA856710, BF942352, AA594442, AV743031, AV735719, H96947, AV739957, AI272958, R57018, W20469, AA191403, BG119796, AI274572, AA191288, AA740554, F26383, AA009897, R99413, R05797, AI748989, AA595773, AA282515, BF753031, F26620, F01244, AA128767, AA320093, AA343244, BF035539, R32398, AA374363, AI611288, AA374425, BF360820, AW473036, R32399, D29012, X61971, D10754, U13393, U13394, E05950, AL050277, AL135933, AF031147, AL357195, AB028451, X63574, AF119936, AF213396, U91329, A59344, AK025015, AF260566, AK027221, AL133640, U49434, AC020910, AY004290, AF070632, AL050129, AX014095, AL353999, AK026613, AL359620, Y08864, AL137478, AK000432, AK026164, AL137665, AF116610, AL133624, AF126488, AL096744, AL133608, AF019298, AR038854, AL117644, Z98036, AL157433, U77594, AL137526, AL110197, AF205861, A12297, AL133623, AC009364, AC018643, S77771, AB044545, AC004227, AF003737, AK026647, AL133081, E12579, AK026659, AK025431, U87620, AK025761, X97332, AK000614, E12580, AX015416, AK024978, AL133112, AC018639, X53777, AF225424, AL161953, AK000212, AF130110, E01614, E13364, AF057300, AF057299, AC025226, AC007869, AB049892, A57389, AK026480, AK026518, T57661, T59327, T8T448, R25859, R26674, H03115, W05680, W25589, AA025424, AA055954, AA057036, AA190760, AA910572, C00011, AA092293, AA093654, AA652601, L31986, AI559731, AI823361, AI885878, and AW024506. |
| | | | | | AV651781, AW965446, AI623305, BG105418, AV695144, AW500557, AI962601, AI816919, |

185	HJBCC19	982465	1 - 1554	15 - 1568	AL529581, BF793008, AW968792, AW958616, AI005133, Z78392, AW665074, AW572797, BB910519, AA311683, AA227581, AI961773, BF311030, AL529580, AA490975, AA580009, BB857081, H15751, W88486, BE011902, BE011961, AI669828, AA378108, AA203400, AA215739, AW297449, BF512524, N34147, and AK000516.
186	HODAA93	982618	1 - 1010	15 - 1024	AU134734, AI921858, BG035733, AW503819, AW502845, AW393515, BE463976, BF085697, AW590049, AW025827, BF927064, M78377, AU135081, AW503556, AW999737, AF002223, U58032, AK001816, AJ224979, AF057354, AF073997, AF125314, and AK023451.
187	HSPSI74	982764	1 - 1578	15 - 1592	AU118627, BE614379, BG109394, AI051622, BG035128, BE745111, BE747176, AU133917, AA977180, AI828930, AU133984, BE906377, AI928364, AI189753, BE621857, BE904639, BE007348, BE788794, BE879963, AI819390, AI445461, BG167065, BE790436, BG119322, AI453743, BE619041, BE621186, BE620997, BE439796, AI983655, BE908365, AI685095, BE908977, BE884393, BE613669, BE789335, BE879041, AU135866, AI633575, BF037650, BE910282, BE906666, AI564644, BE547180, BG122252, BE737005, AI925607, BE905184, BE785244, BF036140, BE617891, BE906281, AW071625, AI591358, BE906618, AI720939, AI804422, AW080238, AI250777, AI678712, AW338147, BE392486, BE881236, AI865838, AI963432, BE874626, AW192593, BF126211, BE897209, BE974032, AW383999, BE548372, AW510672, BE546656, BG113740, BF105867, AI262930, AW372926, BF037109, AU137549, BE904461, AI694111, BE548097, BE785027, AI346835, BE877056, AI927769, AA292956, AW629505, AW262737, BE879732, AI161312, BF791201, BE044033, BF790033, BG165112, AW696905, AW513200, AW008570, AW651691, AI871950, AI871437, AW629109, AI093510, AI377596, BF674901, AA083510, AI597801, BF691383, BE617437, AW629109, AI093510, AI377596, BF382972, BF222820, BE543834, BF184069, BF573710, AI240988, BE867124, BF690916, BF195127, BF593608, BE182976, BF184281, BE905927, BE501957, BE880450, AI911921, BF106087, AI424384, AI591386, BF215412, AW820297, BF131142, BF247995, AV726627, BF102675, AA479712, BF818868, AA877242, AA706057, AA315188, AW961686, AI148698, AI677934, BE564028, AV732963, BF978564, BG169978, AW583735, AA948565, W52095, BE619741, BE961220, BF031297, AV654555, AA524526, BF687984, BE385852, BF102872, BF246934, AA088439, BF979244, AA843108, AI248307, BE156265, AW015724, AW572531, BF690647,

(continued in the adjacent column)

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AI671303, AV696246, BF574073, AI624404, AA599814, AI862650, AV7752796, AW088764,
N49595, AI373326, N46907, AA630029, AI076703, R52979, AA682606, N66860, AW504901,
AI637810, AI804504, AA635074, AI216350, AA761707, AW975470, R61617, BE144059,
H04056, R13437, AV655299, AA806300, AI565337, AV690970, AV683075, AV661993,
F05802, F05782, AA688425, BE093642, T68530, R60949, BF216998, T98033, N93069,
AA332693, T98114, BE969752, AI377881, AI927670, W24722, AI767039, F08707,
AV682040, AV681756, AV724929, AL119139, AV661953, AW805670, AI670931,
AW276928, AI913173, AC026439, and F08205.

| HCEHZ42 | 188 | 983008 | 1 - 3628 | 15 - 3642 | BF670998, AA889018, BG118773, BF687915, AA479834, AA626058, BF571504, AI285092, AI591384, W25540, AW205937, BE349186, C17732, AW959385, BE971477, AI027865, AA733014, AI955858, BF572812, AI492554, AA844898, AA452515, BF244568, AA453027, BE219784, BF126097, AI671727, BF184176, BF247378, AW779725, AA129575, AA903050, AI567995, AA404570, AI470033, BF576011, C17963, BE825569, AA088544, BE543766, AA662517, AA699452, AA723200, AA043217, AI075878, BE961124, BF057147, BF676177, AA147228, W52847, AI990245, BF673172, BE963891, AW673152, W38161, AA627686, BF575906, AA113196, BE182595, AI799814, AI333170, T66110, AI972739, AA190873, AI859160, AI446615, W45410, BE182608, BE619182, AI990827, BE327120, AA182640, BF678404, AI298935, AW085158, AW471421, BF243031, BF570900, AA682601, AW103470, AI242230, BE044134, I34297, U34276, AK023364, D16854, X75684, D86467, T55840, T65026, T85378, T97664, R21752, R21800, R38028, R38114, R79190, R79933, H27252, H28594, H38179, H52504, H61762, H64985, H64984, H80983, H64985, W19298, W60075, W73887, AA010631, AA011222, AA035067, AA035576, AA037696, AA037722, AA043216, AA085492, AA129574, AA136658, AA136645, AA148284, AA155661, AA157944, AA190427, AA190472, AA190966, AA191414, AA192519, AA250778, AA502832, AA581093, AA603586, AA837326, AA962397, W60032, C05782, C06111, C06123, C06365, C17476, C17504, C16377, C18304, AA649494, AA291465, AA411100, AA421678, D11921, AA478271, AA478328, AA487893, AA486595, AA719173, AA722206, AA724739, AA757735, AA989662, AI032569, AI061065, T10930, Z25898, Z28771, AI953883, F09579, AI244845, AI245632, AI246953, AI249545, AI251817, AI254320, AI261359, AI270788, AI270830, AI275372, AI306933, AI309876, AI334860, AI340796, AI348877, AI363829, AI453453, AI446740, AI432033, AI472527, AI468237, AI500576, AI565439, AI582462, AI224222, AI189366, AI650338, AI349390, AI589264, AI621320, AI686240, AI692846, AI693030, AI738844, AI745717, AI769516, AI798415, AI798502, AI800106, AI823466, AI865912, AI872628, AI918453, AI950693, AI927217, AI972899, AI985583, AW016166, AW088968, AW197954, AW242958, AW275048, AW191997, AW194272, and AW300456. AL537881, AL517309, BE735051, BE901285, BE616892, BE735353, BE793731, BE733509, BE545486, AL517310, AI745249, BE734335, BF526598, BE779600, BE796507, BE798600, BE886723, BE617349, BE734009, BE280110, BE901683, BE276201, BE891303, BF342463, BE729254, BE910567, BE884594, BG255411, BE279129, BE888923, BG031148, BE537150, AA604400, BE734392, AW964738, BE259025, AW327313, BE616860, AW385802, BF108767, BE903733, BE349111, BE257437, BE328784, AW156910, BF060707, AW246117, BE263626, BE392648, AI620896, BE252755, AW732968, AA398262, AW778939, BE349863, BF436950, BF964072, BE799126, BE962236, BE781464, AA602489, AI566556, BF954806, AW249583, AI160402, AI809859, BF766680, H21144, H51462, BE616366, BG257069, |

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HDPVU15	189	1 - 1393	15 - 1407	ALS26272, ALS25155, ALS22999, BF966555, ALS26230, AL523065, AI608975, ALS25156, AI356555, BE738267, ALS22957, BF940042, AU132734, BG036876, BF207755, BE866533, BE999964, BF216980, BE567528, BF210168, AW006213, AAS06981, BE748710, BF238741, BE565646, BES67849, BF028372, AI097642, BE671753, BF669347, AA481159, AI365242, BE263776, AW613149, BF207815, BF062845, BF207601, BF184549, BF029492, BE748034, AA600213, AA570018, BF677978, AI380165, AW474849, BF029410, BF212774, AW327326, BF242826, BE782106, AI189808, BF673083, BE958173, BF691558, AW327647, BF242098, W40404, BF183977, BES66862, AAS21171, AI824172, BF701792, BES64186, BE737955, AI630337, AI276975, BE762520, BF183896, BE865656, AI078467, AA706141, AL047101, BES02602, BF207203, F08084, BF241687, BF246011, AI638395, AW947427, AW236896, AI076444, BF575292, W92066, AI370021, H54752, AW083735, AA308891, AA971116, AW952287, BF745131, BES63907, BF907533, R93244, BF421085, AA834180, AI220183, BF754428, F04320, BE566548, BF381304, AW750302, AA193557, BE075259, AW378464, AA847005, BF213891, AV688842, H54751, N93924, AV687331, BF745923, BF798270, BF214281, AA290913, BF209678, BF381625, AW605584, AW384533, AV699554, AA301337, AL042687, AAS69904, AI189079, R57070, N85824, AA828789, AW979044, W92049, and M87339.
HT5GC28	190	1 - 409	15 - 423	AW629796, BE907694, AI879258, BF125522, BG165445, AI991040, BE265179, AA306760, BE386666, BG033049, BF569429, BE616679, BE961094, AV752683, AAS54831, AI904451, BF345953, AI563938, AA421977, AI908006, AA310481, C04874, AA325475, AA641261, C04859, BE298529, AI627256, BE876461, BE907784, C03419, AW085607, AI879639, AI907999, AI828997, AW800145, AA702425, AW834911, AW996129, AI348015, AA331368, AV726768, AA633265, AI078778, BE965867, AA477052, BF128018, BE698358, AI246215, AV704488, BE905105, AI356116, BF981367, AC009470, AX011754, X96506, and U41843.
HDABW50	191	1 - 510	15 - 524	AW160956, BG112870, AA181146, AL533095, BE299316, BF206076, ALS18638, BG025731,

| HAQBH11 | 192 | 985043 | 1 - 1283 | 15 - 1297 | BG027680, BE019254, BF797145, AW160779, AV701299, AL533158, BE254796, BF128863, BE267759, BE618134, BE397759, BF183232, BG034440, BF982019, BG251910, BF797411, AA306380, BE898025, BE897092, BE304609, BE280212, AL533932, BE256616, BE888620, BE257413, BF972257, BF305365, BF303592, AV701256, BE777834, BE785075, AA361278, BE259295, BF033090, BE872617, AL536483, AA147916, BG032975, BG109112, BE616894, Z21306, BF062245, BG170907, BE466819, AU077114, BE542087, BF204786, AA295792, Z20331, AA311755, AA370388, AA381537, BF568489, BE799154, AC027269, X52882, D90344, M12899, A45915, D10606, S46763, M34665, D90345, AF143497, and AF143496. |
| | | | | | BG033206, BF342428, BE512834, AL048282, AI879320, BE856361, BF795509, AU151801, BG261226, BG034970, AA744603, AW665535, BE251894, BF109751, AI554548, AA582428, BG031393, AI741757, BE676082, AI879319, AA488479, AW248852, AW406490, BE256937, AL047958, AI004611, AA037421, AA774634, N93305, AA430402, AW249274, AI400297, AI811153, AV722095, AI741768, BF125670, AL047959, AI097609, AI348358, AI221281, AI929211, AI928959, BG059980, AA430649, AI189422, AA429252, N24950, AV763462, BF821350, W84606, W79170, AI807903, BE675976, AA156930, AA156806, AW957268, AL520686, AA918136, BE350569, AI436788, BE465495, AI914409, AA731701, AW007162, AI572971, AI127872, AI086033, AI304732, AI304534, AI304332, AI436606, AI148551, AI273244, W25157, AW732151, AI016547, AI334031, AW245121, AA195312, AA680089, AA706611, AA905742, AA857129, AI935026, W74366, AI475996, AI077774, AI858890, BE618488, AA613374, AI424179, AI572567, BE302299, N37064, AI469806, AA648333, AI310080, AA854601, AA922513, AW469487, AI276775, AW978876, AA904130, BE677872, AA703663, AI832558, AA195123, AW401707, AL520541, F20916, AI434634, AI167203, AA554680, AI015217, AA716603, AI919489, AI400655, AI369295, BF204499, AI096816, AW291743, AI708380, AW510583, AI073623, AI864517, BG235989, AW957984, BF432700, BG027523, AL048281, AI473968, AI142442, H21173, AA010920, AA628365, AA181912, AA680368, W68434, AA535548, AW193651, AA666297, AW970399, AI567256, N33827, AA723469, W88714, AII29518, W02166, AA927718, BF436216, AW129400, BE903621, BE894137, AI937756, BE255000, AI439069, AW085013, AL528761, AA291158, BE618888, AL520685, H21172, AA701980, W88713, AA745783, R60749, BF438994, BE379605, AI266717, AA021053, BF220074, AA352112, AW151019, BE618705, H62602, BG122824, AI985732, BE619838, AA576306, N41653, AA777363, AA329553, AI536627, BE619636, AA364327, BE619554, AA523080, AI968125, AI362972, R16958, W68552, AW082162, H77490, W60381, AW888780, AI239605, H00750, BE778855, BF002315, AI419366, F37003, AA281392, BE252322, R55029, BE539494, AI264447, F33844, BE622622, AV758923, AA927434, AI300497, H95107, H19581, AA995088, AV739146, AL522112, AI254228, AA909383, BE783148, BF964544, AI933194, BE619936, AW206638, BE386528, N67439, AA032085, AV738905, AA906240, W32502, BF664072, N80233, BG026963, BF943594, |

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HMVAW42	193	985280	1 - 1033	15 - 1047	BE882789, H18418, H18419, BF983783, T98073, BF799367, AK024419, AL049742, D86997, D88269, AC007050, AC002041, and AC007882.
HAGDF03	194	985323	1 - 886	15 - 900	BE743574, BE747360, BF037152, BF037322, BF185217, BF034907, BF035464, BE735974, BE735948, BG177694, AA912117, AI809647, AA904850, BE715907, AW167552, AI146565, BE932773, AA074391, BE932728, AA905581, BF057950, AW197091, BF818794, AW582452, AW362760, AW362834, BE736338, X76029, AF203444, M94555, and AF222762.
HOPKI29	195	985401	1 - 656	15 - 670	AW967189, BF568535, BE876991, BE222939, AA504246, BG249370, BG255913, BF308620, AW328087, BF034851, AW328088, BE793300, BE905639, AI735694, AI095336, BE386578, AA614065, AA569837, AW196810, AA608885, AI653486, AA613913, AI924658, AA613925, AA554728, AI560961, AA719377, AA469078, AA830299, BF038609, AA203548, BG177899, AA614181, AI858312, AA552154, AI200336, AA885917, BE620103, AV754386, AI031613, BE784692, AA081285, BE042784, BE791140, BE964673, AA911010, BE048169, BF568842, AA741206, AA081284, AI126452, AA155948, AI138974, AI139507, AA890569, AV751934, BF125381, AI371201, BF125620, AI205847, AA826559, BE714318, AV726932, AI355171, AI191488, AI311103, AA974366, AA632296, AI581287, W19605, BF125603, AI369911, AI052549, AI363011, AW192081, AA724119, AL110319, AA757027, AI492635, AI310711, W80967, AA828873, AA716667, N70808, W35100, AW190632, N93842, N94928, AW206213, AA804201, AW205535, BF222360, AA045330, W40298, AA186411, AA583415, AI299768, N94313, W47097, AI310460, AV739579, BG168459, AI185445, F21331, AA045388, AA602057, N69883, AW263722, AI874123, AA300062, AI133096, AA308875, BE766731, AA188134, W01415, AI192988, AI002735, AI863303, H73006, BE175080, AW603296, AW883548, AV742934, F00800, AI749433, F36662, W80968, F31017, AA303960, AA902606, AA657819, BF214015, AW883024, AA483632, F22498, BE694643, AW800284, BF820314, AA844336, BE702621, AI206672, R48509, AI445725, AI358193, BE646027, AA599755, BF752265, T90159, AV743096, T90057, F26867, AW882945, AW883656, AW375553, T35390, R35896, BF477469, BE085557, F29236, R48510, BF083095, R35895, N44815, N88653, F29357, AW883811, AI253621, R29399, AA283439, BF213077, AW059723, W20367, C20592, AW883496, AI000414, AW883108, AW883699, R57063, N64284, AW800074, AW882794, AI000414, AW883822, N90560, N57064, D25765, AI802283, N98855, AA155903, BE069170, AW385521, AW883325, AW364453, AI332761, AW820144, AW819764, AW819769, AW606771, BE766667, AW883216, AW819735.

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AV757372, AV757816, AV757802, AV756662, AV757012, AV758504, AV758177,
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HAJCA11	196	985580	1 - 1282	15 - 1296	AU132390, AU124559, BE900238, BE732404, AU129885, BE080187, BE926773, BG114544, AW500118, BE537542, AU131408, BE789187, BF922033, BE281277, BF089292, BF083954, BE731775, AU128452, AW875091, N87006, N86017, BE295990, AU133348, AW875092, BE207290, BG027252, BE085014, BF242268, AC006509, A58904, U28946, U54777, U73735, D89640, and D89646.
HWAHA11	197	986078	1 - 1131	15 - 1145	AL528672, AL528671, BE740519, BG179875, BE876837, BE409722, BF125146, BE384347, BE905434, AA480075, BE736786, BE386983, BE385086, AI708432, BE909934, AA777273, BF901579, AA455206, AA362335, AA969968, AA427548, BE275509, AW104489, AI799353, AA421632, AI078240, AA427707, AW955562, AA454864, AI310388, BE743523, AW170140, AW089692, AI129255, AA903911, AA362336, BF813903, R72751, R72760, AA554328, AA483784, R48745, AI197789, AA304308, AW591924, AA320293, AA491393, BF541788, AA360465, AW839762, BF818256, BE622335, AA143722, AW591933, BF927574, BE071386, BF754668, BE622797, BE071396, BE967257, BE243667, BE071302, D20583, BE729081, AX041029, and AF188504.
HSAM143	198	986158	1 - 1595	15 - 1609	AU149573, BF034032, BE278549, BE731160, BF034631, AW236853, BF084841, AU126259, AI761782, AU151440, AU149075, BF699903, AU150909, BE542926, AL527731, BE539229, AI628901, AU150578, AU152956, AI354451, AW386462, AW386546, AW386459, AW386633, AW386541, AW386540, AW386674, AW172296, AW386290, AA496720, AL527730, AW386399, AW386293, AW386545, AW386675, AA827175, BF109445, AA766675, BF572742, BF700363, AW673859, AI039522, BF904724, AI954042, AW386400, BE538430, BE783497, BF361388, BE535955, AW386676, AA496777, AA332056, AW386463, AW401913, AU125409, BF349062, AW386593, AW386404, AU119856, AW794691, BF361390, AI630067, AW468663, AU126032, AW610565, AW605675, BE816416, AA969139, AA625769, AA948540, BE816439, AI829160, BE833448, AW386548, BE011481, BE011489, BE816391, BF767633, AI798526, BE816420, D59324, AW674070, C21288, AI254727, AI648699, AL040011, AI445620, AI927233, AL040241, AI887163, AW082532, AW051088, AI445256, AL043152, AI677797, AI445812, AI783792, BE393784, AL513729, BE964614, AW076124, AW088560, AI471429, BF921295, AW089275, AV721755, AI590575, AI972170, AL041150, AI368816, AI586931, BE084795, AI620877, BG122101, BG251076, AI538885, AV733682, AI628284, BF965877, BE620438, AI758445, AL046944, AI249389, AI242246, AW163834, AL119791, AI357599, AW078767, AW827102, AI860830, AI886055, AI301710, AI963846, AW089405, AW149221, AI570966, AI571699, AI433611, AW025279, AI582240, AI500061, BG032919, AI453248, AI620639, AI434242, AV750565, AI917994, AA464646, F32537, AI886123, BG107844, AA838230, AI689614, AI812015, BF033757, BF793462, AI241741, BG109164, BG110577, AI439452, AI537677, AW172981, AI679550, AW104141, BF814449, AI929108, AI950877, AI682121, AI686589, AW165937, BE047691, AI818358, AI566430, AW079432, BE879108, AI184903, AV756794, AI623682,

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HNFJH73	199	986165	1 - 2951	15 - 2965	AB007812, AF026124, AK025113, S69407, AL133565, AL389982, A03736, and AF019298. AL135307, AV705200, BG113555, BE893152, AU140178, BE275933, BE894324, AI934515, AA716409, BF060791, BE299687, AI677871, AW954275, N29134, AI808415, AI621031, AA582436, AI923237, BG179963, AA700347, AA463830, AA825773, BE393064, BF219349, AU158345, AI831482, BE893515, AI829698, AI354807, AI041945, BE208699, AA831207, H14671, AA906989, AA460265, N29562, AA679105, H07010, N29294, AA664218, BF438401, N26851, N20226, N21171, R66676, AI147747, BE567629, R53048, AI969497, AA953469, AA976405, AW206458, AW373029, AW503770, BE407841, AA224344, BF111112, Z44255, AA878064, H54297, Z44642, BG006488, AA303163, H05459, N42173, AI206338, AA219130, AA503077, T29413, BE551030, AI805791, R53135, H54374, BF110041, AI970159, R67394, AA384950, R37379, H68011, R73097, AI081796, R68165, BE302777, AW411287, BG119446, AA918529, BE314959, BF988929, AA369756, AA295590, AI927476, R14630, Z39579, R73098, AA960999, H60931, BF212051, F01802, F03399, R13469, AI565718, BF976822, H10504, AA137020, AW590683, AI652433, F03681, BF571534, C15517, F05530, AA136924, AA369755, T49871, AA341117, H60845, W93139, AA010506, BF344411, H67688, AI253282, AI825058, T49872, AW798336, AI185461, AA026121, BF701801, AA026205, AA722157, H14581, AA301189, AW411286, BE220882, R52710, BF700338, AW084882, AA219513, AA932778, N39964, X96375, X76184, AY004174, AF075706, AF075708, E06025, E06024, D12765, U35622, U18018, X63190, AF095890, X96377, and X96376.
HNTCH03	200	986328	1 - 738	15 - 752	AI631653, AW514704, AI683239, AI762458, BE544805, AI952420, AI675981, AI926932, BE536677, H48459, AA780363, R99152, AI049877, AA626759, AL031672, D80008, AP001712, AP000466, AL009051, AC005156, AC006006, AC002115, AC008745, AL121825, U91323, AC025030, AL133244, AL161938, AC007883, AP001630, AC016612, AP001748, AC005531, AC004386, AC002418, AL031597, AC005840, AL159970, AC008747, AL080242, AC002978, and AL031651.
HSUAA20	201	986744	1 - 2257	15 - 2271	AU125631, AU122638, AU124434, AU119564, AL521525, BG108961, AL523942, BG035161, BG251944, BG036436, BF796027, AW853573, BE898956, BG256538, BG119012, BF971387, BF038129, BF665538, BE178302, AI589375, BE292972, BE897915, AW853577, BF983057, BE178464, AI720743, BE743787, BF698180, AA576889, BF344035, BE074977, BG120570, BE074978, BE542431, AU125797, BE074983, BE927446, BF028723, AW664254, AI924017, AA622618, BF699259, AW853635, BF664182, BE773949, AV734594, BE674801, AA780625, BE764622, AW602743, BF751549, BE927448, BE773962, AI652995, AW602746, AI831228, AA127994, AA632633, BE675358, BE855875, AA830571, AW517313, AA460805, AW513297, W80991, BG029093, AA741398, BF082772, AI571048, AI141113, AA946941, AI984475, BF432650, AA652978, AI672687, AI190250, AI678469, AI092182, AA845782, BE927450, AI936315, BF334264, AI075287, BE932015, AL523941, AI597847, W81093,

					AW104773, BG056516, BF740090, BE251299, BF919259, BE773964, AU128580, AI884832, BE932029, BE171973, AI523288, N70538, AW886360, N69034, BF361037, AW071518, AL121348, BF945741, AW801680, BE927444, AA143051, AW801696, W68118, AL120946, BF904452, BF955068, AA807897, BE245676, BE086998, AA765885, AA535606, BE927436, BE778072, BF093541, AA076360, BF373538, W67691, AA663749, AI052509, W27647, AA143250, W00664, BG108992, H83325, AA676456, N93793, BF839013, W05851, AW651747, BF349236, AL521526, AW853630, AA177087, F06727, BF093544, BF229679, AI174288, BE773961, Z39753, AW351657, AI907303, W04331, BF760988, N95782, BF088904, AI253764, BE940308, AW801632, AW021876, AW799691, T79592, BE773988, BE773978, W28688, N67074, AA627487, N92965, C00490, BE773999, AI557470, BF740748, BF743310, T79674, T80951, AA629900, AI695168, AW009552, BE773994, W24896, T87240, BE816249, BE259711, AA368874, AA248274, H56269, AA908719, BF088933, AW403744, BE773973, T29748, W21422, BE927447, AW407237, AW075348, T05740, T24051, T87157, AW361232, AA056364, N74166, BE773977, BF356669, BE175576, BE773987, BE773997, BE773995, W68233, BF088932, AW853634, AA991598, H04126, AU127165, BF740840, BF364217, BE773947, BEI177132, N84336, AW753242, BF832460, BE773984, BE810833, BF945806, BE841985, BE696002, T25762, BE931899, and M63488.
HSPAD08	202	986767	1 - 1213	15 - 1227	AW193875, AI859472, AW512687, AI298658, AI683140, AW510341, AA075515, AI352215, AA293804, AI634702, AI972816, AA451904, AI204509, BFI11273, AI680769, AI206090, AW170346, AW102571, AI491895, AI683354, AI683449, AI800229, AW105621, AW517880, AA628896, AA972922, AII31418, BE393771, AI269897, BE898899, AA477548, AA534766, AA496431, AII28837, AA555137, AA477050, AA563656, BF446212, AW054677, BE208245, AI972158, BE394824, AA432228, AA291675, AA719455, BE394667, AA496562, W67669, AA433859, AA936665, AA452084, AW003747, AA704365, F02471, AA688358, AA292518, AW166518, AA828939, H50634, AA603048, AA075256, AA078977, AA025750, AI609687, BF750539, AA010660, BF035171, AI955963, AA287213, BG150710, BF061263, AI087799, AI459028, AA428593, AI932457, H50635, BF223547, AA284324, W67668, AA327201, AA506658, AA476938, AW772554, BE674284, BE694854, AA722190, AA507349, AI540421, AA010659, AW189604, AA290981, AA969241, AI685657, AA025902, AA406009, AW088425, AA477670, AA402537, AA477179, BE001672, BE382381, BE746798, AA394184, AA477553, BE931271, AW749395, AA290980, F02231, AV705972, AA402896, AA401329, T28367, AW207468, AA079060, AIS21428, BE515017, AA477665, AA335459, BF883518, AA405299, BE001677, AA385556, AW779288, AA403038, BE001587, AW467094, AA411029, AA411533, AA908550, AA293236, AA385354, AI963250, AA402928, AI130774, AW995301, BE816517, BF877343, BF877245, H53726, AL031663, AX014329, and AI8924.
HFKBA32	203	987018	1 - 1853	15 - 1867	BF310989, AA779683, AA778834, BE671061, AV751426, AI055953, BG257892, AI609802,

HHFLU49	204	987071	1 - 1380	15 - 1394	AI860306, W27660, R52806, AW195940, AI380154, AV752306, AI174219, AI422421, AV753926, R44985, T19342, Z45051, BF313622, N50668, AA699401, AI912462, Z40782, AV754072, T32252, AV754907, AA716140, AI382444, R20199, AW519215, N50758, BF831401, BG153108, AW748527, AL449781, AL449783, AL449725, AL449782, AL449784, AL449726, AI202657, AV702148, AL121740, AL031652, and S68401. BE792620, BE019329, AA485440, BE793998, AI469092, BE205890, AI191926, AW194434, AI184921, AL035775, AA455208, AW079362, BE269697, AA485606, AI089456, AI332821, AA630354, AA490222, AA454866, BE677870, AA744740, AI392667, AA856590, AA401195, BF529066, AW473066, BE798034, AI825496, AA352810, AA282213, D20119, R85135, AI564870, AA282165, AI453191, T28579, AA348281, R85086, C02583, BF813606, AF245447, AC022154, U48213, and D28468.
HOENX16	205	987112	1 - 3893	15 - 3907	BE891680, BE178297, BE178296, BE178286, AI268332, BE670810, AV707583, BF195477, BE177969, AW951402, AW958955, BE551841, BF445193, H97932, AI741806, AA778568, AW157094, AV646610, BF448214, AI268370, BE551065, AI702945, AI424098, AW451803, AI692508, AW167867, AA628493, BE044558, BG116437, BE218339, AI598189, AI654033, AV653817, AI817262, BE220165, BE467572, AA971551, AW043615, BF109315, AI936744, BE219699, BE219449, AI819358, AI057105, BF448042, BE178117, BE168027, BF434998, AI887913, BF514130, AW119000, AI459272, AW025400, BF434156, AI703246, C06099, AI689853, AW149578, BF058188, AI791586, AI417870, AI420664, BE178000, AA283186, AI703125, AA394164, AI366783, AI377829, BE178101, AW149393, BF940116, AA464856, AA483691, AI951466, AI371041, AI422898, AI566539, BE219820, AI371032, AI199202, AA583355, BF058198, AI089906, BF116136, BF115258, AA977253, AI146316, AW197103, AI094921, BE326470, AA971743, AA994584, AA044947, AI075961, AI393161, AA044943, AI202319, BE327284, BE669883, AI589590, AA972772, AI632940, AA628533, AW341013, AA629360, AI215842, AI039295, AA532381, AA931937, AI076496, AI081377, AW003065, BE85643l, AI299481, AA932867, BG149327, AW079999, BF436113, AI376081, AI222964, AI362071, BF061630, BF434279, AA427892, BF115881, AA618566, H98616, AI911958, AI080656, AW028722, AA628503, AA884934, AI184689, AA433882, AI357324, AA405766, N33018, AI356893, AW341785, AA934413, AW104344, AA453341, AA994794, AA730790, BE671351, AW771579, AW152313, BF514498, AW139974, AW450904, BF732982, AI560166, AI139706, AW163063, BE672575, BF058175, BF732363, DS2937, AA759378, BF448255, AA992454, BF437946, BF766897, AI350218, AA292346, AW969749, AW263630, N99650, BE219748, BE564373, BE766897, AI350218, AI268578, AA452493, AA577028, AA484850, AW051780, AV646822, AI094082, BF431731, AI268578, AA452493, AW015816, AI279039, AA230021, AA482694, BG149815, AI405847, AI279152, AV723873, AW015816, AI279039, AA230021, AA482694, BE504543, AI383225, BE672185, D62553, T75442, AW966446, AA384817, AI143652, BF514961, BE858120, BE972813, AA001089, BE222561, AA228265, AI205651, AA829807,

					AA332060, BF229130, R80152, Z36959, D44840, AI692586, BE709287, AA668713, AW028893, AA935871, AI311975, AI313288, AW951403, F13013, F10610, AI910420, AI379372, AA516076, R73731, R73650, AI348747, AI610907, BE180375, D62481, BF438546, AI611925, AW297589, AI784325, D45510, BF054671, BE502727, AI671347, AA621928, BE180154, BF886759, BE180152, AI351256, AA745667, D62330, AI371476, AW451761, BF054866, AL022726, U28368, Y07958, U16153, X75018, AJ001972, AF077859, AJ001971, AF030295, AL133390, AF085889, R20393, R43511, R80886, N71679, AA001053, AA149057, AA464151, AA730651, AA923038, AA934400, D79281, C20741, AA410247, AA410595, AA410596, AA436359, AA454080, AA480072, AA482617, AA709262, Z42701, AI469058, AI188065, and AW297335.
HTFOW71	206	987165	1 - 3700	15 - 3714	AU118585, BE875298, AV682483, BE708209, AW965424, BF031382, AA908770, AW194236, AA863229, AA292918, AI140754, BF130541, AI921186, AW188519, BG149424, AA878230, AI828605, AW975392, AW875556, AI949757, AI803722, AV749448, AW474515, AW474470, AI014812, AI373797, AU158313, AA526126, AA809213, AW273542, AW191931, AV715119, N62972, AI914731, N50836, AI784523, AA935043, AV681975, W04335, AA741240, N79876, AA814785, AW876605, AI000955, AI096936, AA767593, AA827102, AW876602, AW023275, AI014777, AA480539, BE007133, BF961785, AV659835, BG026599, AI358045, BF367902, AW340779, AW379327, AA280431, AW393163, R88194, AV749193, AW516924, AI095334, F17499, AW972832, AA527642, BE765701, AA334408, AA745802, W03745, AA252969, AI241826, W03727, R33831, AA096078, R75839, R33832, BE007129, R75838, N73949, AI361182, AV749201, N55158, AA253011, AI571875, AW015268, AB018256, N74169, AI934211, C02132, AW373395, AA253011, AI571875, AW015268, AB018256, AK026643, AK023740, and AF121862.
HTTAG03	207	987262	1 - 1291	15 - 1305	AU130318, BG259774, AU125274, AU128855, BG256568, BG177060, BE257156, AU129041, AI700706, BG024376, AW364136, BE548336, AU128166, AW386043, AW601873, BF525772, BE019700, AU132416, AU127646, AA291324, BE905471, AA179587, AW503906, AW996355, BE747534, BF087827, BE709414, AW197058, W26424, BG257764, R81308, BF754332, BE256391, AU133402, M85963, AW993840, BF754246, AU125115, AW386030, AL121131, AA207003, BE390411, AA332904, BF736085, AV724551, AW373274, AU123386, T09019, BF922018, AU133513, T31784, AU132106, N77135, AU142640, AU128923, AU130530, R18813, Z43001, AU129525, BE694459, T34189, AW977591, F12246, T34191, BF085466, BE719825, BF376318, AU128888, BF968290, BF928373, AW163398, AA985239, T77416, T30644, H14655, BE171681, AA333145, BE887490, BG004439, BG001543, AA972641, BF895334, BG112027, T30285, R34764, R20971, AW503416, T65268, AU132457, BE719079, AV706679, BF895331, H19179, BE295342, BG252015, BE161948, AA156130, BE007849, BF845158, AA429537, BF514515, AU126430, BF929781, AV756829, W96495, BF841516, AA218823, H87691, AA082864, AI989432, AW843600, N56845, BF761493,

Name	No.	Clone			Accessions
					BF899121, AI003240, T78660, BE002101, AA525285, AW340165, AF017085, AF043220, AF043219, AF036613, Y14946, AF038968, AF038969, U77948, AF035737, AF038967, AF015553, AC004883, AC005098, AC005080, AF267747, AC004166, AC008267, AC004867, and AC004878.
HNTNN89	208	987577	1 - 1774	15 - 1788	BG031718, AW513358, BF976544, BF438157, BG032811, BF331293, BG024716, W79562, AL535366, BE884963, BG117015, AI015417, AA195361, AI168363, BF888337, BE736684, BF898627, BE252727, BF092574, BF026987, BF092380, AI313235, AI186042, BF869862, AW803215, BF835770, BF689427, BF002648, BF842552, F01241, BG256421, BF805719, AI460203, BG030479, BF309323, BG256560, BE763786, BG031518, BF922507, AW498536, BF882825, BF988866, BF182880, BE733066, AA452576, BE702993, AW601526, BF027104, BF882823, BF083180, AA195362, BF814079, BE314540, AA343903, BE799669, BF229237, BG257848, BF812714, BG007737, BF229214, BF829579, BE771762, BF827229, BE781509, BF346947, BG003854, BE747136, BE933685, AW499012, BF527029, AA248724, BE899626, BG030023, BG164309, AU141520, AI075687, AW498552, BF025833, BF900113, BE173877, BF912681, BF313647, BF954395, BF757992, AA577565, BG256431, AU118535, AI795846, BE140733, AI795807, AI795845, AI834271, BE140756, AI795820, BF766160, BE278426, AI795809, AI816586, AI816599, AI795804, AI795835, BE140737, BE140735, AI795812, AI795806, BE140736, BE839312, AI795802, BE811847, AI795830, BE772922, AI834270, BE140734, BE140738, BG694678, AI795853, BE140757, BF923079, AI795850, AI795844, BG031631, BE273730, BG176632, BF894840, BF981708, T12220, BE560871, BF348639, AA932665, BE140785, BE140782, BF777506, BF357970, AW177740, BG177284, BE889126, BE294313, BF984543, BE140785, AA554454, AA706989, AW845338, BF882819, BE769206, AW580354, AW177756, BF966485, BF375580, AW581253, AW732883, BF203759, AW732860, BE616578, BF923384, BF842532, AA452754, AW607309, BE769218, AI834266, BE168455, BE814247, BF089125, BE769200, BF510367, AI905996, BF972638, BE275901, X51466, Z11692, AF079098, Y07504, U17362, M13708, E01155, U89415, X15337, X15335, X15336, X13988, Z34849, AC002347, and X04267.
HRADQ96	209	987636	1 - 799	15 - 813	AI347165, BE674960, AW262846, AL524881, BF590769, AI479150, AL524880, AI765046, AI954702, AI862166, AW341529, BE671360, AI979234, AA425381, BF222205, AW271374, AI498382, AI350299, AW207600, BF445305, BF939315, AA971011, AA045629, AA047515, AI675480, AI952656, AW136682, AW886735, R94308, AA135217, H92097, AI364888, AI566024, AA676245, T67202, AA885307, AA459915, AA460100, AA906376, AA935669, AA399986, BF590005, AW518625, AW769577, AP000503, AL132713, AF134726, AL122094, AJ245661, and AA401402.
HLDCJ16	210	987808	1 - 955	15 - 969	BF110739, AV704400, BG119539, AA905643, AA011185, AW975682, AA730907, AA736634, W70279, BG116516, BF914127, AI751939, AW963708, BE734515, AI242625, AA374275, AI148822, AX046526, AX046525, and AB023209.

HCOPH23	211	987900	1 - 591	15 - 605	AV729764, AA489568, BE938598, BE535256, D63283, AW177206, AA992072, BE843894, BG108043, BE865610, AW592116, AW996479, BF920145, AW996421, BF666980, AW996637, BE568865, BF216333, BE929243, AW950983, AA355341, BF036942, X89478, and A84106.
HEEAQ78	212	988159	1 - 609	15 - 623	AI203969, BE296775, AI694104, AW006595, BG259789, W19306, AI202279, AW117484, AI244102, AA360001, D31227, AW173045, W30958, D31245, W79314, AI968556, N27070, D30986, W87555, AA099257, BE550156, AI588983, AW204247, AI366748, AI805886, AI138445, AI313140, BE468140, AI458728, AI275451, AI279857, AI674281, AI431916, AW664610, AI928380, AI269434, AW303460, BE674620, AI803131, AI867122, BE221203, AI925957, AI435892, AI767332, AI218515, N99243, AW770741, AI279859, BE670348, AI379346, BE465388, AW663406, AI265771, H85592, BF110468, AA464584, AA909667, AI073818, AI243233, AA502751, AI804773, BG009489, AW779926, AI697614, AU145024, AL121250, AA889681, AC005746, U28049, AF244917, U15566, and AK001031.
HOFNY16	213	988363	1 - 1198	15 - 1212	BG164515, BG111223, BF112285, BG026284, BF684158, BG112559, AI741360, AI028092, BG027394, AW054930, AA843208, BF112117, BF106122, AI885734, AI086570, AA779766, AI149382, BE465615, AW131854, AI589032, AI761580, BF970936, AW338608, BG028559, BF594649, AW957967, BE535650, AI221082, AI538973, AI457118, AW305001, AA224194, N32622, BE857341, AI332782, AA574231, AW166459, AA502344, AI446132, AI333381, AA918408, BF700624, AA843391, AI188410, AA911794, AA694111, AI128450, AI017450, AI183618, AI695163, N71175, AI359210, AI362223, AI076169, AI373833, BE645009, AI969702, AI679434, AI679944, AI632818, AI751761, AA464068, AA677764, AA262544, AW611909, H98169, AA316805, AA224296, AI351595, H46974, BF939054, AI094637, N29775, BF000254, AA191432, BE439725, H99191, AW003944, BF317333, AA261907, AI654665, AA766635, AA629945, AA345802, N49576, BF941630, AA513768, N21971, AI469939, AA731203, AA627622, AI222668, AW627836, AI128771, AW206264, AI678337, AA463932, AA526189, AI535798, AA526159, BE615345, N24474, AA781062, BF373261, AA766011, AI004436, AI249345, AA027991, AA366773, AA344096, R10708, AW131678, N28580, W19349, AU156209, AA333690, N47841, N57194, AW337311, AA027990, AA618114, AA861099, AA508759, AA780171, AA355540, AA508773, AA528039, AW972443, AW972641, AA535956, T25759, BE770747, AA918251, BE164977, BF997435, AI687527, AI749060, AW197976, H83283, AW104117, AW866581, AW866501, BE841187, BF374341, AI969030, BF001680, BF792390, H61031, AW866266, AW132056, AI590043, BF812960, AI433157, AI702073, BF812961, AI950892, AI635942, BF812938, AW827289, AI114703, AI280637, AI648454, BF970652, AI435253, AI633125, BE047852, AI445611, AL514717, AI569583, AW366372, AI693391, AW129659, AI635461, AI888208, AI862139, AW168650, AW026882, AI491775, BE964614, BF724198, AI431975, BF814453, AW251034, AW051258, AI536685, AI802542, AI818980, AL515191, BF816042, AV729953.

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HLMJB09	215	988499	1 - 577	15 - 591	BE791453, BE266718, AI831454, AI478449, BF204533, BE728534, AW872373, AI366669, AI280407, AAA306735, BG149615, N93873, AI268479, BE669813, AA465678, BE550202, AA912151, AA394238, AA972278, AW138759, AA310901, AW004693, AW008896, H96033, AA576640, AA292385, BF307199, BF511769, and AI074225.
HOVEF60	216	988526	1 - 1429	15 - 1443	AA863120, BF732255, BE326946, AW298244, AA017053, AA435512, AW295622, AW295626, AI951643, T53592, BE939132, AW294754, AA393547, T53591, AV699140, AA969193, R05527, AI085442, AA372985, R22075, AL160237, AC022137, AC011452, AC010636, AC002097, AF072711, AC006452, AL022326, AC008469, AC005520, U82670, AF176315, AL136969, AL365217, AC008770, AC005057, AC073316, AL133258, Z97054, Z69387, and AP000344.
HOGDR72	217	988536	1 - 530	15 - 544	BF967495, BF211711, AW327285, BF526862, BF979085, BG027660, BE251902,

| HOCMF20 | 218 | 988556 | 1 - 1296 | 15 - 1310 | AV762304, BE260454, BF129885, AV741191, BF681456, BE907272, AI884918, AI095756, F30101, BE254907, AU126691, AV714954, AI827092, AV743251, AV710585, AW732886, AI344424, AA584218, AA744890, AI300848, W16526, AI748804, AI857538, AI264687, W47377, BF792830, AA040213, AA609680, AA937134, AV745024, BF681171, AA557625, BG231394, BF239199, AI188746, AV721211, AA855009, AV715743, BF686712, AI033767, AA420847, BF965251, AV724057, AI312889, AI342092, AI392941, AA707599, AI573264, AI298244, D61196, AA707532, AI338594, D20757, F24231, BF447322, AA650234, AA758576, N29939, AA468938, W05637, AV751983, AA313977, AA683534, AA469013, BE868256, F19198, AV737070, D51524, AA420429, AA657493, AI749529, AA335917, AW008966, H10544, AI131360, AI037998, BF240779, AI751883, AA313970, AI051789, AI159957, W47378, AA523187, AW026532, BE887794, AI857469, AA657513, F24557, AA146866, AI720892, F36863, F28793, W32886, AA146867, AW007089, BE672619, D81191, AA968838, BF337165, D51520, AA889941, BF954574, BF209878, AA632059, AA576811, AI300706, T79725, AV739817, T68141, BE812441, R73094, AA339720, F19462, BE073352, AA724959, AA961393, AI336135, AI138721, F27913, T30336, AI204128, F31843, T32200, AA568145, T36073, N74191, BF210913, T67995, T92099, T71446, BG254284, F34123, AI749424, D56154, BF954482, AW884243, AW939886, AA083105, D81173, AA313992, W35155, BF239376, AA471133, AW631265, BF572665, T31892, BF131513, D81247, W04355, BF572508, AW327625, D81378, D52437, AA082542, D52443, D59501, AW793583, AA083106, T24841, C03173, BE972561, W05779, R29137, H89590, D53867, BF799254, T35945, D52190, AV737705, AI936104, N92532, AA630017, AA040193, AA922437, AA382273, AI161393, F22684, AV741683, AA996319, T36223, F29277, AV719994, AA721470, AA622177, AA040194, BE073240, W38814, AA382638, BF840821, T77354, H24146, BE907742, BE073229, BF588473, AI191983, BE905959, BF431001, AA633270, BF572727, AA860915, AL046356, AL041862, AL079977, AX017269, AR022287, AL138958, L42855, AR022284, AC004493, and AC005570. BE514634, BG256857, BE870314, BE537227, BG107758, AU157540, BE379227, BG180584, AA039903, AW957081, BF666246, AA041527, BF223913, AI088688, AI452952, BE463637, AI768938, AI354883, AI569996, AI168582, BE746240, AI189869, BF930629, AU138248, BG167829, AA214649, BF897138, AW613854, AI086670, R70656, AW262560, AA906264, BG176733, AA862839, BF992831, BE613477, BE614226, BF772857, BE741553, AA369318, AA398795, AA334622, AW749053, BF979310, BE541549, AI990089, R01145, AA367593, AI990659, AA379173, AI449915, AI886597, AI024032, AA435840, AA670197, AA847919, BF195634, AA248230, BE707671, N81095, BF196800, AI476295, AW818630, BE677063, AW630122, AW582595, BE072906, BF899151, AW818433, BF928637, AA211075, AW582587, BF877092, R05760, AW858854, BE964371, BF773525, BE937222, AA079305, BF799977, BF982105, BF988362, BE927423, Y10043, AF003626, AX012194, AX011713, |

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HHFOX44	220	988904	1-951	15-965	AL526701, AL522456, AL532453, AL527039, AL523903, AL526253, AL528026, AL527184, BE313151, BF981949, BE382548, AL528052, BE382760, AL530393, BE563051, BF316765, AL525360, BE295221, BE395130, BF343372, AL522455, AW161570, AI752220, AL528025, AL523902, AI752281, AL532452, BF316189, AA780343, BE314081, AI751714, BE710678, BE312148, AL525320, AA838048, BF526000, BE262585, AA308676, BE735562, BE295717, BF340685, BE714898, BF206587, BF207314, BF875508, AL527163, BE383255, AA532924, BF312104, AW160787, BF342085, BF206655, BF338128, AL524678, AA443563, T61701, AI750244, AW605824, BE792522, BG026032, AA327814, AI815410, AA042827, AI460348, AI365667, R19505, A09809, X16302, M35410, S37712, M69237, AF074854, S44612, AF120326, U21117, AC007563, M69239, S37722, and U21118.
HPWDB54	221	989029	1-4052	15-4066	AW857689, AW276231, BE551292, BF308481, BE299013, AA490201, BE670363, BF669630, AW005386, AV716271, W58532, N34876, H49263, AI989984, BF380965, BF351245, AW604667, T65325, AA316606, AI632927, AA284855, AW175932, AA456691, AA479509, AA284772, BF882124, BF754718, AI332652, AA479512, AI344533, H20606, BE502863, BF527371, AI025009, AI914188, F11769, AA449658, BF093603, AA992445, H14740, H69342, BF329858, H78105, AA065099, BE220691, AW003734, R91727, BG015459, AW468776, AI239843, BF333777, AA411443, AL135088, AA235153, AI651557, BE048365, F35147, BE311701, BF803133, AA479511, AW080475, AA689564, AI093007, BF329815, AI367837, Z41915, AW051387, W24995, AI613126, AW975318, AW383213, H82282, H24463, BF761251, BF834044, N55797, BF761000, N39880, AA284683, AI582820, AW444888, BE326218, AW002105, BE768127, AI350138, AI681729, H60265, BE940320, BE326820, AA284567, AA815230, AA476964, BF911584, BF909991, AW183890, AI241032, W46875, AA084319, AI633647, H94957, AI262918, AI022584, AW005596, N43950, H82389, AI683444, AI252060, and M85156.
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HOOJB32	224	989321	1 - 2335	15 - 2249	ALS15532, AA829751, BE748918, AW007550, AL515533, AU119923, ALS18484, BF697251, AW978734, AA812215, AI333647, AA776760, AA479310, AA976233, AA765519, AA602624, AW978969, BF214666, AW893942, AW993668, BF726646, BF036225, AI619447, AW2772900, AAI143053, BF589461, AI832440, AA825905, AW271599, AW439208, BF981088, AA868695, AA652054, BE895236, AW607674, AA143252, W60553, N27545, AA255434, AW272364, AI886366, AA027768, AA766708, AI079161, AI963170, AI079664, BF132493, AI274767, AA938443, Z25256, AI803757, AA757112, N40361, AV699373, AW607572, T50699, AW607642, F00462, BE165952, BF130297, AA876224, BE560621, BE748396, AA294831, BF900791, AI698984, AA255596, AW572264, AA805436, AA357727, T77071, BE896446, BF921133, AW964250, AA479413, BE542265, BF241063, BF576917, R80504, AI886367, AB007619, AF006265, AF076524, AL133353, L29555, AF059321, and AI168650.
HMWJJ35	225	989323	1 - 595	15 - 609	BF130431, AU148003, BF541521, BF668426, BE960616, AW955644, BF242464, BF242953, BF700182, AW592565, AL536954, BE737954, N39380, BF698754, BF214449, BF667459, BE565781, BF028162, AA640397, BE748478, BF238497, BF664849, W00920, BF665032, BF570721, AW976277, BF027869, BF664855, AA379071, AA329515, D80838, AL536953, BF695984, AA936496, AL109925, AK022419, AF254117, AF264787, AL137060, Y15228, Y15381, and Z57881.
HHFIA95	226	989396	1 - 3136	15 - 3150	AU118053, AI761722, AU133368, BE220681, BE904300, AA903124, BE218571, BE875326, BF110216, BG254952, BE393532, AL134516, BG105299, BG177247, BE885702, BE154897, BF037984, AI831473, BF574765, BF576023, BG260292, BE439745, AA604081, AA603455, AW629057, AI817117, AI694366, W80392, AI935246, AU144710, AA887227, BE154865, BG104770, AI076013, AA211611, AW168295, BF672060, BE154866, BF036585, BE154898, BF355599, BF671956, BF031143, AW769409, AW263745, AW977292, AA211683, BE075303, AU154716, BF215526, BF800037, AW086067, BE871344, AI281897, AI827407, AI244255, AI660036, BE789605, AI559254, AA044091, BF983298, AI122753, AA917034, AI637588, AI808102, R60765, W78970, N22921, AA393733, AI040177, BF229422, W56449, Z33451, AW771892, AI190898, AA547998, AW242400, AI188686, AI242430, AA604102, AA044281, AA765282, AV722457, AI338330, AA159042, BE880891, BF574179, AI338329, BF103937, BF219369, H18545, AI973242, BF105139, AA393851, BE891180, AA995784, R60253, AA569460, AA936280, F06764, AA993733, AA031985, AA541308, R67234, BF229418, BF802756, Z39821, AA173320, AW136432, N63356, AW316605, H51502, AA173319, AU124276, H02648, BF672600, Z26973, R81685, AI244925, AI016876, H18437, BF686307, AW265135, T54070, AI541355, AA565781, AW023057, R74303, AA856745,

HSPSH36	227	989607	1 - 3341	15 - 3355	T34301, R28236, H74149, R38158, AI332886, Z42782, AW242417, R34113, AA731347, BF734577, BE708141, H51503, R38121, F05473, D57866, AW804895, BF577280, AA031984, R27980, R81686, R38063, R38035, AA300862, AI804174, AW050651, Z38926, AA894455, AI499327, BF355594, AW151345, BF088241, BE932744, BE932715, BE932737, BE719774, BF835036, F01732, BE167500, BF088221, BE933511, BF790450, BE719784, AA248693, BE719818, BE719777, AI364416, BE719788, BE932729, BE932756, BE932760, BF835030, BE932736, BF835028, BE064173, BF088220, AK021602, AB002533, U93240, Y12393, AF020771, AK001237, D17139, AL022152, AC000100, AC004945, AL109623, AC005392, AL034551, AC020599, AC005783, AL162811, AC009314, AC003001, AL031054, AL139396, AC017047, and AC084429. AI084794, AI079577, BE881652, BF339888, AU129623, AI860227, BF527871, BE902813, AW247256, AW149506, AI340349, AW165995, BE258548, BG120667, BES62875, BE671167, N49941, BG122408, AI937382, BE220476, AA114972, BE467738, BE872452, AI798846, AW043850, BG104282, AI660526, AW504750, AA053861, AA432275, AA034091, BF798185, AI310064, AI677900, AI587077, AA543064, BE045523, AW898148, AI693972, AI356444, AA845685, AI084913, AI140117, AW593208, BF111021, AI273445, AA431268, AA934875, AW248351, BF432911, BE670425, BE828110, AI221382, AI356446, AI160550, BE217783, BG112435, AI689824, BF110424, AI914318, AA953658, W73665, BE673799, AI359956, AI360429, AI804623, AW965712, AW205262, AI342370, AA620610, AA918736, AI279173, BG149447, AA041542, AI304417, AA515511, BF061408, AI565733, AI859179, BE674577, AW071018, BF061911, AI351605, AA001196, AA923717, AA706669, AI950177, AI566935, AI311478, W73617, AA007600, BF840585, BF061852, AA503205, AW014660, BF112260, N52723, AW303274, AA352018, AA961114, BF195300, AI480209, AI278673, AI916311, H38785, AA047595, AA136472, AI052140, AI298446, AA057216, AW043575, AI128768, BF446866, W68642, AI033091, AW665976, AA889932, H95052, AA747719, T66290, AI298975, BF773249, AI375774, AI703297, AI500368, H20393, BE327032, N99560, AI090578, AI023749, AA086083, AI275622, AA757794, AI452648, AI583232, AI568624, AW470278, W68641, BF978456, AI364086, H16275, H38686, BE831779, AI459176, H83993, AW149552, AW949838, AI422271, R05556, H12369, BE676655, BF197252, AI609045, BF055295, R19188, R87458, R05663, AI268656, T66343, H21010, N50155, R71281, H43161, R61162, R85142, AI918177, R73430, R71230, AA372029, AI268549, AI702648, H75726, R99486, BG165410, H12317, AA814517, BE645111, AI348485, R99485, AI500402, AA975326, AA976181, R31047, AI348329, AI083736, AI369621, AI568988, Z41094, H66760, AI479912, AA086084, AI970578, H22528, W35148, AA971720, F12147, AA760693, H19816, H20389, Z43042, AA016275, AA782921, R05664, BE044409, F08012, AW973038, AA927449, H94692, BF766588, AA019859, AW151197, R56553, R05452, BE762898, H20197, AW006795, AI457786, AW002114, AW247925, AI937423, AA725110, AW505065,

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HTEMJ16	229	990060	1 - 784	15 - 798	BF309104, BE559524, BE281458, BE385728, BE786863, AV756337, AA779378, AA806308, BF027226, AI955259, BG115810, BE257947, AI479643, AI201081, AA449114, AI523836, AW105647, AI371725, BF971945, BF037117, AI332998, BE791557, BE796212, AI832556, AI360813, AA812681, AI338226, AV733716, AA133351, BE795339, AI160821, AA417906, AA719870, BE744787, AI911189, AA652508, AA074869, AA677398, AA196804, BF685157, AA713507, AI028708, AA583945, AI949595, BE730232, AI804084, AV701912, AI272799, AI076158, BF684668, BE512992, BF037939, AA758900, BF686755, AI084956, BF667373, AI738876, AA593880, AI401016, BF032897, BF207166, BF694324, AI242445, BF975403, AI189240, W42538, AI401016, BF032897, AA620875, AI188600, AA657626, AI274502, BF680048, AI094068, BF733159, BE878000, AA620875, AI188600, AA463687, AA196803, AV744973, AI284416, AI187079, AA962082, BG176811, BF308448, AA463687, BF244980, AI804825, AI871846, AI224529, AA468047, F19538, AV709297, AA308585, AA187442, AA721050, AA233918, AA234166, AA234913, AA987467, AI127473, AI147167, AW795107, BE163110, AA463761, AI476030, AA234914, AA482379, BE698022, BE717214, AA091369, AW844269, BE698050, AA471119, AW873836, AA468083, AA872664, AA969703, AA906776, AA229993, AA469001, AW844282, AI253673, AI220722, AA312835, AA318396, AJ003540, AW964407, AI687745, AA468927, AA468096, W31092, AA357299, AA628636, N44134, AA479333, AI186421, AA449548, BF955675, AA720885, BF374556, BF797432, AA833536, AA887208, AA385197, AV742900, AW794203,

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HLWBV17	233	990255	1 - 684	15 - 698	BF991324, R48885, AA854391, BE743249, BF572574, BF993909, F22269, H11318, BE816818, AI919387, BE929439, AA293184, BF993998, AW601441, AA551484, AI215973, AA040571, BE074790, AI684072, F25626, AA225507, BF229895, H45378, C00180, BF994312, W32101, U46271, C03223, AI918341, AA356495, T99316, AA371678, AI342719, AA300944, BF344854, BF446856, AA364820, AI871791, BF993916, BE769414, BF331401, H45041, AI206745, BF856284, BF993912, BF332671, AW268821, BE185060, BF856295, AW082610, BE766240, AW939875, N41296, AA143767, R73522, AA330825, BF572595, AW407942, AA293185, AW198148, AW885160, BE155766, BF737069, AW381772, AA810809, BE173861, BF570667, BF755706, AW582513, BE828404, AW843210, AA458493, BE155779, AA904696, BF743412, AW748144, AI139866, AI633937, BF572945, AF222742, AR048276, AK001416, AF038958, S45663, AC010527, AF038959, AC009004, AX041002, AX040958, AX040974, AL133655, E13998, U30290, AL133053, AL133076, AL133084, AL133070, AL049423, AL133051, AL133049, AL122101, AL133607, AL133015, AL133608, AL136975, A90832, AR055519, AF002985, AR015970, AR034821, AX015526, AX030435, AF184110, AL122049, AC024067, AL110171, AB047966, AF126531, Z69719, AC004213, and AA494290.
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HODGN92	237	990611	1 - 492	15 - 506	AI114709, and BF515175.
HPDRP30	238	990751	1 - 2150	15 - 2164	BE736233, BE393462, BF979620, BG180451, BG031119, BE895899, AW015154, AI367256, BG250616, AW246035, BF589766, AA723883, AI339548, AI148428, AW518892, AI874244, AI339560, AW003788, AI653700, AA777268, AI261244, BE906120, AA847296, AW007179, BE293221, AW173770, AI346957, AI475948, AI143349, T65504, AI814098, R52652, AI339729, H39618, BE545311, F13535, BF980260, AV652617, and AL122073.
HBXFN09	239	990769	1 - 234	15 - 248	AA034059, BG169883, and AW998693.
HDTBO75	240	990913	1 - 455	15 - 469	AV752559, BE041424, AI374803, AV662297, W92499, AA431153, AW977181, BF439568, AA678183, AW834968, AW834907, AW837310, AA885002, BG028110, AA732329, AA732727, BF242398, AA432173, AW176741, AW580372, N55761, BF982207, AW241399, BF224093, AW970314, BF507800, AW970227, AA628895, AA766833, AA534395, N32238, AA347608, AW189247, R49979, N31980, AI650721, AI685214, AW511372, BG257682, BE549817, BG252929, BG167830, BG029667, BG113493, BF795712, AL039390, BF796402, BG261260, BG113712, BG163646, AL046681, BG178532, BG180295, BF968504, BG167093, BG114865, BF345716, BG111831, BF971261, BF965904, BG111590, BG036465, BF968622, BG251851, BG165260, BG176936, BG104735, BG108452, BG035330, BF794212,

HELGN26	241	991014	1 - 1609	15 - 1623	BF970582, BF971269, BG035858, BG170653, AA527442, BF032717, BG255093, BF684481, BE304332, BF312957, BE740090, AI651618, AI700966, BE616023, BF439777, BE218172, BG259712, BF223565, AW328638, AW081016, BE312971, BE218745, BE880967, AW965885, AV688930, BF110536, BF223349, BE616836, AI659341, AI492019, BF037137, BG011544, AI801971, AA653440, AI763063, AI362810, AI830364, AA602677, AI799940, AI590301, AA155644, AA132754, AI693639, AI538876, AA935812, AI913180, BE262105, BE220203, AW872403, BF431624, AI478310, BE502628, AI963163, AI049932, AI867018, AI445763, AW328637, AW237634, AI686646, AI093564, BF309857, AI355982, AV692290, AW004960, AW628274, BE676445, AW168151, AI720994, BE501936, BE677346, AI624773, AI038791, AI673720, AA777083, AI241965, AI083640, AW513233, R50466, BF962310, AI990564, AA121215, H30620, AA101514, W67379, AA778130, AW139256, AW514997, BE897897, AI540831, AI824615, R39429, AI291349, AW193446, AA114190, AI241095, AW193788, AW589519, AA132803, AI687589, AA358948, H28151, W31255, AA912622, AW591011, AI538118, AW075509, AW614272, BE349060, AA456143, AA780923, H46616, BF529857, W67264, AW235829, AI686256, AA308514, AI538723, AA706294, N91821, R38344, AI811489, BE833082, AW663952, AI862679, BF856265, AI478217, AW338623, T24735, BF981529, BE242914, BF970481, BE272808, AW953574, AV709660, AV709314, AV727029, AW951768, AV728518, AV696931, AV706417, AV656256, AV703169, AW954237, AV692691, AV708893, AV709390, AV728642, AV686064, AV660728, AV691080, AV661704, AV655280, AV659322, AV708381, AV727935, AV699089, AV706721, AV687035, AV655096, AV707753, AV708025, AV704269, AV726103, AV705280, AV698545, AV729220, AV726816, AV695545, AV701707, AV656283, AV701914, AV705159, AW945168, AV658863, AW955012, AV727787, AV654908, AV652001, AV651955, AV696866, AV725920, AV704234, AV702516, AV709407,
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HODCU15	242	991048	1-3173	15-3187	BE782829, BE166336, BE893914, BF963846, AI637581, AI635627, BF956699, AW615337, BE892490, AW081066, AA398002, BF246643, BF959925, BF943255, BF352768, AV714386, AA399078, and AC046129.
HOGD151	243	991268	1-962	15-976	BE745148, BF314775, BF313468, AW972065, AI468027, AA190647, AA732363, AI568476, AI815528, AW015158, BE315222, AW958765, AA725374, BF446080, AA668784, BF313148, AA058590, BE741366, BE261839, AA021327, H92735, AA627547, H96373, H85956, BE843878, BF058863, AA973647, AA018467, AI240617, AA383496, AW439263, AI925892, AW162022, BE694410, AI739208, BE694382, AI336026, AL044942, and AF007872.
HLWAF02	244	991516	1-569	15-583	AA421538, ALS25449, AU153711, AW964455, AW964457, AU148695, AU149818, AU147714, W72446, AI004165, AU159170, AU151493, W31068, AW874565, AA295338, AW269624, AA577265, BF764205, AW732171, AV702593, AI863050, AW003851, AI190446, BF843436, AA417216, AA483528, W74385, AW748748, AA318970, BE795181, AA872030, W76345, H26877, AW384040, AW517019, AW884747, AI469697, AI370275, BF892944, AI017646, AV690726, AL036104, H99624, AV689538, AV698770, AV691815, AI421770, BF591512, R94006, BE782006, AV689959, BE169392, AV689985, AV689953, AF004539, Z41369, F09802, AK023231, AK001371, AK026645, AB040885, and AK023160.
HRKPA16	245	991654	1-625	15-639	BG259737, AW194396, AA143418, AA404619, AI608754, AU154417, AI374988, N63618, AU149063, AU152646, AW966669, AU152215, AI038547, AA443610, AI690852, AA427421, AW339887, W60354, W59988, AW118447, AA349493, AI445343, AA461548, AW993204, AL121201, AA946641, H59011, AI014721, R98999, AW103224, AU157188, AI357842, AA927255, AA843235, BE467545, T64658, AA887129, AA354545, AI811399, AW072161, H21841, AA805567, H88125, H49591, AI279415, BF912456, AI621314, AW593607, AU148527, AU157952, AA665881, AW021674, BF084343, T24715, AW406139, H88124, BE174405, AA640305, AW021674, BF914416, AI754257, AA493464, AI572680, AA610644, AW051097, BF747303, BE328286, AA177130, AV651424, AA493245,

AA633804, BF947959, AA100107, AA676462, BF084979, AA846944, BF679568, AA579417,
AW875184, BG059139, BF932382, AA730530, AW962268, AV683406, AI308529, H37968,
AA425283, AW847028, AA338474, AA834891, AW975434, AW501278, AI567676,
AW793601, T57562, BF541501, BE974200, AA493808, AA657808, AI344906, AI318548,
BF736912, AI570067, AA179364, BE244722, BE063646, AA663579, AI376687, AA492496,
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AW576221, AA772493, AW963295, BF823660, AI354377, AA639040, BE139230, AA129000,
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AI538404, AV712092, AA669225, AV763460, AI499538, AI631299, AA632355, AU146789,
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AB035195, AC005666, AL049646, AF205588, D34619, AF207550, AC011296, AP000691,
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AL365505, AC005856, AC005052, AC005280, AL139343, AL022336, AC011462, AL050349,
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HEAAY09	247	992678	15 - 405	1 - 391	AU124283, BF306200, AU139037, T77235, AU121920, R14830, BF934985, AW403909, AW630865, AA359207, AI929350, BE552049, AU118152, AU133500, AL037780, AL037781, AW163588, AU119533, AL533231, AI342324, AL525586, AL534903, AL532560, BE082428, AL533180, AU137962, AL533149, BF307401, AW394232, BG114142, AU133890, AL517501, AW160514, AL536801, AI929125, AU126141, AU139293, AW368666, AU129935, AI309542, AL532677, BE612412, AL513758, BE299128, AU135050, BE742584, AU129755, AI309542, BE886331, AW163176, BF346813, BF220002, BE512694, BF361085, AU134988, AW842087, AW842088, AW842086, BE541071, BF528575, AA178907, BE617099, BG178536, BF340570, BE891863, BF091880, BG109816, BE410513, AU140111, BF346953, AI201385, AA781408, BE894297, AU127156, BF316594, AU134195, BF528479, AA398237, AA403177, AA347489, BE897187, AA634306, BE873260, BG257621, BE891934, BF037637, BE796323, AL047517, BE890489, AA668405, BE544513, BF311830, BF529750, BE548934, BE314356, BF527194, AI018415, BE544804, AA192090, BF345146, BE539195, BE896937, AL037971, H79173, AA191007, AA160986, BF343228, AL036607, T96350, AI191902, AW246288, BE149595,

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HTXDY55	264	994699	1 - 276	15 - 290	BE241618, BF967213, AU136610, BF980823, BG167993, BE904497, BG166879, AA316320, BG108260, BF032916, BE219939, AA429187, AA446365, BE327680, AA121059, AI681670, AW651689, BG028658, AL523554, AI929475, BF210951, AI984608, AW367123, AA262627,

HFOYI37	265	994776	1 - 739	15 - 753	BF966433, AF035606, AK001917, and U58773. BG109766, BG105926, BF692516, BF664251, BF688436, BE875390, BG109747, BG035909, BF970556, AW250576, BE900583, BG026679, BE878884, BF794165, BF976452, BE736120, BG031147, BE729357, BE877578, BE795468, BF688232, BE746139, BF245353, BF338554, BF244479, BG036485, BF982066, BF313910, BF036466, BG109842, BF791758, BG034461, BG117069, BF792758, BG114839, BG033722, BE886095, BG171042, BE257620, BF307047, BE735602, BE299813, BF342847, AV701221, BF663327, BE900645, BG251353, BF727139, AV743879, BE874785, BF983850, BG112494, BF793074, BF965863, BF663279, BG036333, AI751041, BE727591, BE889746, BG031486, AV734449, BE544132, BE254377, BG029536, BE270481, BF965283, AL535797, BG107168, BG113386, BF964816, BE267387, BE738044, AV752441, BE270455, BF797372, BF036710, BG107168, BF965061, BE786378, BE879576, BE904807, BG025904, AW014150, BF965061, BE728776, BE883341, BE260961, BF126057, BE907972, BF718407, BE905940, BE905659, BF239138, BF718612, BG122417, BG256185, BE728227, BE312855, BF240138, BF242457, AA642852, BE880883, BF718532, BE538681, AA307553, BE538643, BG029238, BF681352, AV743427, BE787767, AW327840, BF212711, BE214381, BE906403, BG120301, BF038389, BF032831, BF689246, AA308582, BE884573, BE568338, BG112395, BF718776, AA316955, BE737786, AA535287, BF102789, BE881558, AA316284, AA308670, BE874983, AA316553, BF718683, BF029119, D56272, BE737963, BG115963, AV739694, D51124, BE565428, BE738399, AV738913, AV712380, BF718622, BE784801, BE877028, BE865693, BF169727, F20819, BE298062, BF211274, BF315518, T27636, F24452, BE739645, BE738206, AW068298, BE261442, BE738273, BG034437, F37402, BF571319, BE395762, BF310625, BF697600, BE313174, BF244308, BF303726, F25324, F20636, AW957333, BE563923, BF303651, AA146868, BG110622, AA315892, N77939, BF571305, BF718598, F33134, BF125885, BE960878, AV738228, AW408000, BF210245, BF029247, AW327881, BF700470, F20282, BF238356, BF245722, F30691, AV710336, F30820, AV738364, BE906206, F27818, AA306499, AV724929, BF212390, AA157054, BF796856, AW404866, BE277264, BE277269, AA143290, AV724929, BF215956, AA385201, F24576, F28257, BE277011, BE514876, BE389163, W03894, BF215956, AA533618, BF718795, F32109, BF055644, BF240053, AA501970, AW022377, AV708457, AA533618, BF718795, AW021281, F31767, BF185361, BF791484, F32578, BF238936, F30162, AA179118, AW021281, AI309282, BF669141, F31195, F26670, BE734016, AI525222, BE258863, AW020382, F26077, AI309282, BE739184, H02747, AWS18445, AW328274, F27843, AW024028, F31722, F22445, F27271, BE739184, BF389163, X77398, AB007158, AX046357, AR066494, AR060234, D14530, AC010598, AC005406, X77398, AB007158, AX046357, AR066494, AR060234, AR069079, AR043113, and AA541570.
HOFNL18	266	994874	1 - 393	15 - 407	BF982594, AA304945, BE786293, AA355289, BE882518, BG164113, BG036187, AW945552, AL522242, AL521727, AL533678, AL533751, BE018492, AA312114, BF210611, BE886709, AA495817, BF002097, W72340, BF968410, AA477457, N79824, AI669118, AI245484,

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HOFNT57	267	994954	1 - 1163	15 - 1177	AU130186, AL532858, AU143566, BG032538, BE731387, BG178926, BF246251, BE546764, AI130008, BE882058, BE900653, BE901813, BF131040, AW238927, BE278958, BE280397, AA146802, BG258310, BE280706, AA037291, BF130537, AW408060, BF671218, AA281910, BE958235, AW958055, BE958177, BE281535, AA304757, BF699291, BF082842, BF667061, AI378241, AA304345, BF155007, BE855677, BF196802, AA380691, AW961766, AA878646, AI702569, AW026139, AW372761, AA635825, BE855640, AW372751, BF733132, AI472824, AI016431, AA843477, AA887947, AI378170, AA744678, AI361091, AI081395, AW516559, AI003236, AA146803, AA767727, N34655, AI399815, AA380690, AW856740, AI080717, AA962414, AA661648, AI983339, BF476713, AW088309, AW304176, BE719113, AA961155, AW189866, and Y11651.
HCBMT45	268	994993	1 - 1656	15 - 1670	AL524032, AL520718, BF343440, BG114926, BG163566, AW749600, AI628088, BE903299, BF348876, BE902526, BF036229, AU121257, W47499, BF348874, BE070481, AW875044, AA326810, W04800, AW838268, BE671868, BF357960, BE547306, BF888235, BG114819, AW937280, AA434529, BE070427, AA004472, U92010, and AK022138.
HATDZ56	269	995200	1 - 1879	15 - 1893	AU117737, AU119363, BF981791, AI126717, AI052256, AU121212, BG165314, BE902257, BE536040, BG259893, AU142181, BF342007, BG164121, BG111390, BE898067, BG028752, AW189938, AU135622, BG118715, BF795161, BG169327, BG121236, BG028368, AW070663, AI885180, BE880899, BE881172, AA745594, BF306702, BG107907, BF740223, Z99376, BE539928, BE892210, BF220065, AI014817, BG249687, BE880172, AW239211, AI784576, AW073683, AA524748, BF528854, BF665628, AW327439, BE779442, BF792343, AW276639, BG122906, AW872951, N36799, AI608763, BE783594, BG231999, AA627848, BE546358, AW247076, BE328479, AI127547, BE614484, BG179876, AW960374, BF343168, BE093813, BE958181, AA166916, AW327258, AA568685, BE464835, Z99375, AA700740, AA740916, AU150439, BG033007, AA573156, AW631056, BG177074, AA099018, AI051506, AA074799, AA812422, BE613976, AA835672, AW627745, AW976548, AI185757, AA503846, AA761648, AA592898, BG114482, AA160273, AW029151, BE546491, AW517165, AA451628, AW250428, BE958175, AI138225, AA809470, W63552, AA828239, AW327612, AI371140, AI371046, AI004126, AI089539, BE539342, AU145724, AA127406, AI537332, AI190076, AA687268, BF381173, AA715174, BE206290, AI073676, AU128126, AA167073, AI278484, AA775540, AI923795, BE535848, AA524391, AA978034, W88636, AA768416, AI635344, AI025865, AA992622, AW403551, AA393865, AA721424, AI024400, AW362155, AA962673, AA856908, AA173982, W73908, AI314538, AI031946, AA593126, AA031733, AI167830, BE936495, AI380802, BE043974, AI752947, AI761093, AI033288, R54097, BE697208, AW819111, AI380802, AI761093, AI033288,

HOCQI44	270	995229	1 - 715	15 - 729	
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HNOJG43	271	995562	1 - 1016	15 - 1030	W04406, BE940226, BF818730, AA705085, AA092755, BE963676, BF745587, BF755809, U73379, AL050348, AL121852, AC010326, and AR018789. BF530931, BE887433, AA700637, BG031212, BE787285, BG032265, BG250289, BE872777, BF975368, BE888350, BG259501, BG178671, BG121264, BE385572, BG025460, AU123889, BG120763, BG176849, BE018986, BG251569, BF310080, BF796217, AL040945, BE292902, BE867768, BE778230, BE313767, BE535894, AW651694, BF203366, BE885600, BE018210, AA568104, BE263239, AW244142, BE890472, AW069664, AA165235, BG029628, AA311257, BG028398, W26906, BE873320, H29111, AA379686, BF081407, AW732839, AA165234, AA379707, AW408242, H92844, AA309679, AW732846, AA355319, AW244134, AV739862, BG030885, AB040387, H17153, AA337612, BE384475, BF811815, AA079621, BE385617, AA327809, AA453327, N89415, BF757893, AV737107, BF085282, BF358015, AI904702, AI571790, BF088476, AA028062, AA028061, AW262589, AA877545, AV737069, AL040946, AA149034, AI911678, AI264209, AA582725, AA594933, AW513329, AA488110, BG231727, AW612918, BE301689, AW673154, BE208801, AI885475, BE207777, AI678902, AA879144, AA588402, AV708243, AV708606, AI904760, AW899615, AW971745, BE208405, AA617827, BE837271, AA772717, AI281987, AW804686, AW392670, BE695785, AW861944, AA612842, AL119396, AW604723, U46349, AL119355, AW858526, AW858525, AL119522, F30775, BF926800, Z99396, U46351, AW877209, AL119319, AL119457, BF858264, AW190557, F21301, BF360811, AI685800, AL119324, AI311525, AA970639, AA954246, AA151031, AW276144, AA463498, AI302605, F36969, AA971107, BE705903, AA745842, AA884129, AA613325, AA779167, AA832350, AA907225, AW615590, BE705906, AW577135, AL119483, AW372827, AW384394, AL134525, AW861889, AW858455, AW363220, AL119497, AL119484, AL119363, AL119391, AL119401, U46350, U46347, AL119443, BF868687, AL119444, U46341, AL037205, AI904745, AL119341, BF868684, BF868697, AV744583, AW604726, AL119439, AW511430, AL134902, AL134536, AL134538, AL119418, AL119335, AII42137, AW511403, AL042984, AL119496, AW861954, AII42132, AL043039, AL042544, BE705904, AL119399, AL043029, AL042450, AL043011, AL042965, AL042542, AII42139, AL043033, AL042614, AL043003, Y08915, E12650, AL158141, AL049776, L31652, AL042975, AL119464, AJ223157, AJ223156, AB026436, AR080280, AX046357, AR060234, AR069079, AF000577, AJ223156, AJ251859, AX030435, A81671, and AJ279014. AR066494, AR054110,
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HCORG29	273	995806	1 - 1461	15 - 1475

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274	HCRNO02	995894	1 - 525	15 - 539	BE348752, BG113168, AA992688, AV691812, AA458647, U30825, AL021546, AP001725, AP000692, U87279, U87277, U87278, AA877919, AA011220, and R29605. AI087863, AW205361, W67736, AW135527, BF112018, AI261883, BE886105, AI954585, BF592922, AA922244, AV726182, BF033136, AW402172, BE889683, AI347209, AW605270, AW949405, AU134577, BE539958, AW605272, AW418630, AL525630, AW601391, AA321817, BF115737, AV689056, BE565311, BF572563, AI933896, BE894922, BF853166, AW605273, AI879891, AI692564, BE909642, AW270487, BF669959, AW084360, AA602961, AA101742, AW612752, BF757848, BF797062, BF977586, AU142848, W25008, AV708387, AA306002, AW614255, AW377570, AV728041, AA016984, BF755701, AI802071, W67735, BE885363, BE884342, BE890337, AA377036, AA092406, R27168, AA069079, BF760715, U18914, S82081, and U35428.
275	HCBOI79	996247	1 - 879	15 - 893	BF344503, BG253745, BE884245, BE315407, BG180340, AI114464, AI744084, BF003120, AW451065, AI888992, AI431740, BF568084, AI380546, AI656998, AW300527, AI433538, BE464324, AI160803, AI874272, BF476317, AI916753, AI638710, AI952946, AA009412, AI888867, AI796216, AW051510, AI871622, AI382137, AI570640, AA136115, AA009693, AW237382, BF592115, AI916760, BF102764, BG256114, AI357604, AW206165, BF059310, BF874841, AA767400, AA962144, AV694380, AI223191, AW242929, BE791944, AV707942, AA136067, AA450010, AA047548, BF591090, AA057784, AI671950, AI803084, AA452628, AI183340, BF591405, AI810350, AW015545, AI217043, AI818009, AW182191, AI564896, AW075602, AW014905, AI357555, AI766792, AA566017, AI336131, D20857, BF668498, AI751642, BF568923, BE799110, AI364812, BE673585, BF217847, AI873178, BF954384, D31155, AI969843, BF939241, AA329597, AW169141, BF221870, AK000857, and AC003112.
276	HVCAB73	996337	1 - 1513	15 - 1527	AL518842, AU118468, AU117968, AL517493, AU117660, AU119978, AU142310, BE790938, AU142367, BF972250, BF984978, BG252995, BF684869, BE559749, BE560314, BE902291, AU128821, BE795645, BG032172, AU123321, BG110982, BE792404, BE300141, BF982746, BG113974, BF984581, BF794875, BE907107, BG257415, BF309826, BE795893, BF792464, BG028288, BF965624, BE735087, BF976730, BE799193, BF305694, AU142239, BG257876, BF529711, BG613812, BG114278, BE901386, BE618095, BG122124, BF026898, BG256177, BE783011, BG032093, BG114277, BE891718, BE618641, BG107568, BE888894, BG180037, BG028062, BG251091, BE612467, BF311267, BE868694, AW947123, BE298422, BE908780, BE278771, BE278994, BE614277, BG121166, AV759228, BG116644, BG108186, BE272582, BE746783, BE785332, BF979838, BG121166, AV759228, BF979294, AV698719, AL040837, BG106907, AV706709, BF316338, BF973741, BE730725, AA206423, AV706293, BE789022, AV706359, BE259394, BF983820, AV713317, BF311733, AA206423, AV706293, BE789022, AU134782, BG261061, BG251520, BF981835, BE543291, BF980476, BF310651, BG031342, AU134782, BG261061, BG251520, BF981835, BE396863, BG028634, AW946539, AV653256, AL035921, AL653256, BE612914, BG026070.

| HSDJH04 | 277 | 996619 | 1 - 926 | 15 - 940 | BE544347, BG024696, BG113200, BF972102, AV728702, BE789705, BG149851, AV710582, BF794705, BF213710, BF220326, BE537395, BF217202, BE541909, AV759268, BG120022, BE395339, BE537041, BE548606, AA601029, BG036355, BF246531, BG167445, BE896941, AI057010, BB812336, BE542239, AA307289, BF995858, AV706710, BE539462, AW190078, BE782878, BE796539, AI684231, AL040836, W17334, BE302615, AW672824, BF220224, BF762979, BF762966, BF029521, AW377668, AW603070, BE894067, AW402238, AW177685, AW248375, BF813108, BE255382, BE790645, AW188659, AW575102, AW516109, AA314077, BE122693, AW177686, AW192644, BF315609, AA022980, AL047461, AW377677, AA081026, AI559299, AI885467, AW027224, BE544276, BE676503, AA314697, AI888122, AW166841, AA232117, AA220961, AW192546, BE780391, BE890743, AA307202, AW402279, AW996071, BE207001, BE263263, AA420820, AW403477, AA082420, AW674874, BF216301, BF794903, AV761075, BE245781, BE001570, AW239431, AA627189, AI653670, C14730, W52929, AV738244, AA463299, AA620594, BF762981, BF241424, BG058799, W40344, BG121872, BE905667, BE207663, AW383919, AW438610, AI472187, AW675241, AL035922, BE613555, AA553417, AV763106, AW305029, AI348466, AW675501, AW383917, AV716734, AW954659, BF970806, AW383913, AV737716, AW383918, AI630195, AA588555, AI921124, AA224137, AA916397, AW131000, N23582, BE177562, AW383908, BE245163, AA974644, AI887220, AA894687, AW629912, U10323, AF113702, T70129, T75532, T95137, R17573, T27052, R19790, R53272, R59922, R65930, H08925, H47546, H47774, H47784, H64949, H69959, H69960, H80517, H80569, H81281, H81337, H87618, H89042, H95712, H95729, N34733, N49675, W05310, W52084, W92294, AA009892, AA045887, AA082088, AA199931, AA223456, AA224153, AA224177, AA232349, AA581072, AA581073, AA586543, AA837533, U46279, N85685, N87344, N88407, N88432, C14958, C15353, AA095468, AA096112, AA206240, AA205297, AA214272, T15816, Z43205, D31020, F05491, F07919, and AI619887.

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HSOAN18	278	996804	1 - 616	15 - 630	AI203751, AW950006, AA364024, AA148237, AA303787, AA307134, AA580283, BF431349, AA327106, AI032424, BF087648, AI685585, F16067, AA662657, F36431, BF974095, AA304009, BF821420, C20560, AW075010, AA136184, D45577, F16068, AA358228, AI281988, AI735119, AV725497, BF477955, T84734, AA811986, AA725721, AI459929, AA586418, AA631238, F33060, F18414, AI826545, AA570767, BF761449, BF246323, AW054871, AA031479, AW581427, AA101022, F29813, AA196067, BF245508, F28872, BE855474, N88416, BF196399, AA507658, AA320057, AW964519, BF130033, U37690, Z47728, and AW070533.
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HHEHF49	279	996874	1 - 788	15 - 802	
HCHCF36	280	996903	1 - 838	15 - 852	AA604207, BF568246, BF685919, AA769075, AI829363, AI160465, AW611817, AI365676, AA909715, BE504747, AI333819, BF828573, AI523938, BF989966, AA768116, BF091370, AI168213, AI658820, BE390437, W56333, BF987457, BE797515, BG110670, BF974205, BE745959, AI652259, BE563589, AI097626, W56246, BE880543, AU141729, AL134271, BE93141, C75024, AI933359, BF087614, BE279562, AI475845, BF314042, AI936721, BE735049, BE298845, AI933320, BE265132, AW512295, BF802106, AW498827, AI431995, AI283491, BE222982, AW449482, AA808235, BE392368, AI763116, AA814951, AA505663, AW274238, AA056204, W56326, BF036391, W56359, BE900914, AI656477, BE818925, AW162674, BF309126, BE700914, BE254984, AA055543, AI760331, BF827226, BE395139, BF229557, AI369700, AI369699, AII97948, BE048398, H81842, AW242328, H44030, BE742153, BF828519, BF307576, BE617252, BE514899, BF125485, BE812253, BE184274, AU130605, Z25808, M77198, BE793542, AI082336, AA459967, BE812253, X65687, X61037, and AC002364. M95936, D30041, U22445, X65687, X61037, and AC002364.
HAHCK58	281	997127	1 - 1797	15 - 1811	AL530933, BE744244, BE886518, BF307394, BE886078, AA521306, AI346509, AW014616, AU154742, AU160803, BF307330, AW662413, AW043807, AW000956, BF434533, AU159740, BE350868, AL530932, AU153954, AA031263, BF897515, AU153595, BF223978, AU146675, AU152826, AA524349, AU143944, AI340333, AW128969, AI826348, AW305306, BF062439, AI564106, AW304346, H71784, BE878383, AI161344, AI262022, BE504256, BE326650, BE504858, AI039240, AW162372, AI962737, AI309252, N76604, AI815896, W69677, N94090, AI935385, AW271271, AI948839, AA010408, BG004347, BF091918, AW513419, AI289056, BF055132, AI638198, BE219405, AW008633, BE676811, AA532714, AA632276, AA040180, N54492, AA570140, R98609, AW025830, W69676, AW510423, AW073235, AI694628, R15330, H71783, AI886412, AA582538, BF798373, AA635538, AW578114, N69270, R98610, AI917180, AW014409, BF886580, AI383709, AW078973,

BF888376, R96473, AA011236, BE139647, R96472, W23106, AW044241, H37813,
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AI222936, BF737167, H75904, AU117001, AA031337, AI367688, W07590, AI823334,
AA040181, AI453543, H67441, AW375895, R77788, AI630685, BF798370, AW000974,
AA219406, BF091159, BF091899, AA693496, AA609001, H67387, R45504, AU134927,
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BF091195, C01873, AA367973, R24771, AW132078, BG177469, AI436065, N67327,
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AI873765, AV745724, T17187, AL514791, AL513755, AA613907, BG258600, BE964876,
BE909398, N42321, AI312428, AL513907, AL048656, AI932953, AV682697, AI888953,
AL514543, BF990167, AI873731, AV710950, BF960601, AV758738, AV682772, AL514129,
AV681869, AI906328, AL514261, BE047691, AA493647, ALS14935, AV756150, AW813006,
BE172767, AV699193, BE965095, BE966775, AI813986, AW954031, AL041562, AI149592,
AI886415, BG032214, BE877540, BEI64610, AI907070, AW162189, BF870154, BE905415,
AI624859, AV762619, AL514421, BE613880, AV735022, AV682385, AI382201, AI813914,
AL515047, AI348901, BE971716, AI907061, AI344182, BF814018, AI678989, BG151247,
AW946760, AW168031, BG034550, BF037607, BE964741, AV693157, BE968711, AI682106,
AL513687, AW132121, BE789764, AL513991, AIS38342, BE881134, AI635942, BF108084,
AI335426, AI348777, AW004886, AI364788, BF793324, BE877901, BE904051, AI570966,
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I89934, U00763, AK025967, AK000445, AF119871, AL353957, AK025491, AL359618,
AF090896, AF155827, X93495, AB046642, AF111851, AF130104, AF305835, AK026950,
AK025708, E15569, AL133072, AL133560, AL133637, AK000652, AF118094, AK026480,
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HETII06	282	997165	1 - 371	15 - 385	W04730, BE266365, AI133648, BE793925, BE559709, BE790580, AL518848, BE865465, AL530857, BF132480, BE740884, BE795484, BE793563, AI304872, AA741065, BE865290, BF683810, W80875, AA122216, AA308813, AA284386, BF326544, AL355392, AF161516, AK023992, and AF152097.
HAPOE30	283	997595	1 - 2897	15 - 2911	AU117247, AI126490, AV717396, BG104731, BE501285, BF056914, AI094852, BF796496, BF063299, BG256800, AA454987, AA454988, BG114650, AW080282, AW966631, AW168948, AI336277, AA772322, BE220380, AI859792, AI417858, BE466892, AW103075, AU159373, BE504285, AA918401, AI432403, BG230590, BE673392, BF670742, BF725058, AA410511, BE540683, AA083340, AW594055, AA418120, AI949050, BF112235, AU144138, AA679107, AI708897, AI376002, N78061, AA477527, AI700609, AA828552, AI991181, AA417942, AW168995, AI139660, AI021901, N25477, AI004673, AA411601, AA024709, N49529, AA693311, AI985704, AI985594, W60152, AA778693, AA180440, AA418978, AI767329, BE350692, AI242979, AA577408, W51942, AA524990, AW195065, AW028525, AW953384, N49287, AA418805, AW243797, AI246226, AA024727, AW008941, AA757727, AA527910, AA074180, C05139, R67172, BF348935, AA813662, AW971329, W94122, AW614468, AW513979, N58471, AI868472, AW182171, AA707715, AI183895, AI927765, AI620107, BF508176, R59987, AI654118, AW204432, H44803, AA352918, AA295664, AI499474, AA363317, R09270, R26284, AI784077, AA385639, R25459, H95934, AI572507, BE160130, AA885993, AA363316, R35885, R35884, AW993480, AW023692, AA721410, R36442, AA251090, AI864808, W94018, AA579940, AI872496, AI249523, AW993214, R36160, BE817052, R58756, AL513907, AV729890, AL514919, AL514627, AL513597, BF054789, AI985363, AL121270, AL514691, AV655645, AW071349, AW827203,

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AV711924, AV681858, AL036396, BE964812, AI064830, AL513803, BE964700, BF673434,
BG260037, AV757455, AL046849, BG107847, BG108147, AV723062, AL045500, AV682772,
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BG114104, AV715263, BE965095, AV681857, AL513553, BG168696, AL036802, BF968041,
BG029399, AV682521, AV682809, AV710479, AV758592, BF968493, AV755581, AL120854,
AI500553, AV723953, AV757943, AV682051, AI433976, AV756477, AW827249, AV755613,
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AF118064, AL110196, AR079032, L31396, AL442072, L31397, AX046603, AF118070,
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AL133075, AF119875, AB048964, AL050108, AB041801, AX019230, A08913, AL162083,
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X63574, AJ000937, AL133565, AL122121, E07361, AL137459, AK026533, AL122123,
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AF091084, AL110225, AL359941, AF097996, AK000137, AB052191, AK000445, AF207829,
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E07108, AL050138, X82434, AK024538, AB048954, AF177401, AK026542, AL133560,
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AK026583, AK025491, AK000652, AK026353, AL117585, AL353940, AL359615,

HRGDC33	284	997862	1-1826	15-1840	AB047904, AL117583, AK026504, AB052200, AL049464, AF119871, AK000614, AF130099, AL049300, AJ238278, AK026534, A08910, AF130066, AF116682, E02349, AK024524, AK026532, AF130077, AF177336, AF130110, A08912, AL137271, AK026959, AK026086, AK026480, X70685, AL122110, AL050024, AL049282, AL133258, AK027113, AK025414, AF067728, AX042059, S61953, AL117435, AK000323, U72620, E05822, AF183393, AB049892, AF118094, AK025967, AK025391, AP001666, AX026824, AX026823, A58524, A58523, AB048974, AC009364, AL137648, AF130087, AP001346, AK026526, AK000432, AF116610, AF175983, AK027204, AK026642, R09167, AA476684, AA904630, D25837, and AI873137.
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HMTMB91	285	997873	1-1162	15-1176	AV755264, BF577013, AI923558, AW268804, AW469653, AA760854, AA580566, AA580691, AA836465, BF899990, BF926478, AA768321, BF514639, BF088900, AW392416, AI885519, BF061715, BE888827, AW129764, AI951031, AW858464, AI936012, T40389, AW392849, AI820997, AW858513, BF950338, AW836417, AW392833, AI821288, BE503330, AW837691, AW750461, BG114047, AI275943, AF109907, AC004858, Y12017, AK026107, AR060046, and AR060053.
HFAAD07	286	998059	1-988	15-1002	AV684787, BE674615, AI887753, BG258585, BE218749, BF224413, BG165003, AI702451, BF224407, AA548464, AI978680, AA071156, AA191693, BF570780, BE738364, AI797896, AI826052, AA041342, AW014334, T62575, AA197202, AI084270, AW375498, BE775118, BF333162, AA188647, BF431428, AU155686, AA602203, BF751398, BF365027, BF155009, H10377, H20737, T63199, AU117290, R71297, AI829554, BE645507, BE815650, BE247171, BE701182, T62541, AI659397, AI868867, AI810306, R40856, BG110361, AI701277, AA602213, T62616, AI221666, AA070862, AA860281, BF718478, AA191265, BF088816, BE090765, BE840583, D25992, BE704032, BF692434, AW754457, AW363933, BE540276, AI217112, AA528408, BF981414, BG015645, AI633390, AV727030, AI199435, AK023434, AB029036, AJ132948, AF119043, AL035410, and AK021491.
HE8TG67	287	998517	1-1884	15-1898	AL537729, BF346881, AL536527, AL517563, AL518650, AL525543, BE621523, AL536921, AI040011, AL531577, AA704144, AL516123, BE271006, BE540109, BE619747, AL533503,

1893

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A08913, AF130110, A18777, AL133619, AL389957, AF090900, AF116682, I89931, U91329, AL133557, A08912, A08910, AR087170, A08909, AF017437, AK024588, AF132205, AL050024, AK000618, I33392, AK000212, AF153205, AK025798, AK000310, I09499, AL133014, AK025465, AL137479, AR038854, AK027116, A08908, AF090896, L04504, S76508, I89934, AF116644, AF119883, AF090943, AK027121, AB048953, AK000250, AF119857, AK026608, AR083266, Y16645, AF028823, AL049382, AB047897, AX019230, AF225424, AL080154, AX011676, A07647, AL359620, AF208026, AF056191, AL050393, S78214, AF113691, I29004, AF130104, AL050146, AL162083, AF119896, AF143723, AF119859, AK026741, AB049853, AF090903, AF262032, AF117657, D16301, AL137547, AF155827, AL096751, D83032, X66871, S36676, AL049283, AL122050, I46765, AK027204, AL117585, AR079032, AX046842, AL117394, U42766, AX019229, AF113013, AX012188, AF113689, AR034830, I96214, AL359622, AF218031, AL353957, AF111851, M30514, U58996, AF202636, I17767, AF111849, AK026647, AF106657, AJ005690, AL133104, AF116639, AL133558, AK025967, AX047644, AF218004, AB050421, AF185576, AK000083, AJ238278, AK025349, AF242189, AL353940, AK000391, U80742, AL122093, AL080126, AK026600, I00734, AB049848, AF267991, U75932, AF314091, AF116691, S75997, AL050277, AL137526, AK025391, AB048888, AL110196, I03321, AK027146, AF026124, AF218023, AF116646, AF254119, M27260, AF130068, X54971, AF138861, E00617, E00717, E00778, U57352, AL359615, S77771, AF178432, AL133113, AK026506, AF175983, I89944, AL133560, AK026534, AF100781, AL049324, AK024992, AK027102, AK027096, AL137557, AF159141, AL137478, AF218014, AL390154, AK026642, AK025906, X70685, AL049314, Z72491, AB047941, U53505, AL117583, AX017991, AK025209, AL137459, AB048974, X52128, AF130105, AK027164, AF017790, AL137529, AB050431, T92736, R33834, R33835, R33993, R34880, R36088, R36183, R41327, R53706, R41327, R72170, R73657, R76025, R76227, R78754, H15810, H19741, H20074, H26185, H28046, H39612, H42479, H44400, R85909, R87326, R88467, R90835, R90836, R90927, R96270, H51203, H51431, H51570, H51940, H92747, N31624, N62322, N79443, W37310, W69152, W69277, AA016048, AA016059, AA017717, AA029411, AA029277, AA065039, AA071000, AA074465, AA113882, AA171923, AA533376, AA551621, AA551734, AA584329, AA568455, AA657809, AA745127, AA761504, AA804720, AA834831, AA857175, AA968508, AA976763, AA291776, AA427412, AA476955, AA669654, F22178, AA852221, AA861255, T03330, T03513, AI027029, AI080033, AI122866, T15399, T17025, AI439358, AI560117, AI566983, AI567273, AI570382, AI582975, AI584181, AI624390, AI627996, AI183819, AI654280, AI272156, AI587318, AI613240, AI689548, AI690603, AI744851, AI745467, AI799307, AI859423, AI859509, AI919574, AI953465, AI963535, AW016491, AW088681, AW071042, AW128909, AW130417, AW131920, AW152670, AW197018, AW078705, AW079199, and AW337323.

HACNC39	288	998533	1 - 527	15 - 541	BG258323, AV726190, BG059174, BF031580, AW247693, AV733393, BF673590, BE393632, AV718256, W33034, BG223143, BG027098, AA316722, BF540944, AV740290, BE620501, AA761185, W76104, BE880515, W72590, AV712501, AI373016, AW951730, BF343423, AI301029, AW516518, BE336891, AI973019, AW954688, BE267264, F19333, AA642858, AW275727, F24037, BE886443, R98379, AA293612, BG029810, AI074416, AV682189, T30842, AI193781, AI709082, AA010642, BG178022, BE206642, AW163422, AI369744, BE737738, AA972242, AA505959, W30911, AA622015, AI479908, N39461, N99973, R89095, F24482, AA081027, AA502036, R89203, AA035242, AV758359, AA573301, BG116673, BF976770, AI205784, W69222, AI301695, H55975, AA081028, BF028555, N95321, W01264, AI719663, R98380, AA861810, W07432, BE744309, W57656, AA927506, AI719437, AA226340, AA226339, AA659132, H55976, AA635460, BE263378, AW004852, BF208315, AI096433, AI885213, AI097113, BE858122, AA935727, AA935732, T64927, AA128637, AI282165, AI299205, D31544, AI087422, AI299261, AA977268, AI493422, AA535488, AA927717, BE738497, AI028146, AI027821, AI288435, AI590079, AV744150, AI758305, F32365, AA601928, AA862695, AA910891, BF082399, AI867500, AA601890, W69078, AA535582, AA011251, F22069, AW162386, AI554628, AW157546, AA514029, AA527091, AA514433, AA948196, AA307500, AW163423, AW841585, AI266428, F36879, AA304694, AI277191, BE620900, T34355, BF687997, D11824, F29996, AA127824, T19184, BF898606, AA852606, AA480469, AA385328, AA046538, BE045065, BF678637, AI880263, AA128770, T39525, AA837248, R66514, T67659, AI580758, N73968, BE567125, BF217569, AA680363, AA301822, AA055001, BF246041, T32179, AI879869, AI143015, AI141685, AA010673, AA177089, R67830, AW964427, R30686, AA973995, AA572821, AA282316, T30691, AV715207, BF743095, W24587, AI468069, AA321070, AA358416, AI445120, AA996068, AI014448, AA908418, AA931480, AI148889, AW583730, BE045228, AA045468, AI467821, AW583317, AA308501, BE049525, AA962130, AI148886, H47357, F37883, F27165, N70956, W35401, AW151841, AI148586, BE833126, F31392, F17340, N75848, BE174000, W03741, BF819345, AA092713, BF541948, BF819342, AC008752, and AF318186.
HCOQP78	289	998901	1 - 1051	15 - 1065	BF038501, BE743899, BF032818, AA587273, AI470221, BE501242, AI566249, AW590780, AI963941, AI916929, AA933987, AI656124, BE672062, BF508514, AW873183, AW801187, AW610294, AW998772, AI914774, AW610295, BF915088, AW998876, AA320217, AA343629, AW965060, AA401047, AA400995, AB008927, AB008390, AF055982, AB009849, AF095742, AX002035, AF095743, AF251125, AF243527, AC011473, AB012761, AB010780, and AX002037.
HCGMA67	290	998905	1 - 2397	15 - 2411	AL516908, AL529636, AL526532, AL526512, AL528012, AL522876, AL521127, AL526488, AL521128, AL516907, AL531189, AU122740, BE745665, BE250550, AU119700, AI743606, BE798628, BE736968, AU125167, AW797870, BG112405, BE902115, BE560581, BE734679, BE793368, BF969559, BE620400, BE263360, BE736647, BE902108, BE728049, BE796873, BE870756,

1896

| HSKHK19 | 291 | 998968 | 1 - 1335 | 15 - 1349 | AW411493, BE270572, AU133808, BG121078, AU133710, BF686594, BE910106, BE257320, BF317202, BE793091, BE730051, BE263846, BE384717, BG115969, BE879093, BF183030, AU134059, BF974997, BE737205, BE396557, BE262942, BF027539, BE793751, BE904872, BE893045, BG178142, AU133810, BF310279, BE311403, BE780071, BF125763, AW249262, BG167684, BE799083, BE150570, BE264319, BF797226, BE276706, BF797134, BE277414, AU122878, AI819948, AW292784, BE018144, BE731116, AI346337, BE388636, BG232088, BE644993, AW085502, AI819956, BE273350, AW411494, AI922650, BE079846, BE390098, BE385907, BG250419, BE264525, AW244841, BE542604, AW604679, AI818941, AW264093, AI126505, AI818959, AW837557, BG114384, BE779041, AW182262, AA436151, AI184672, AW069602, AA599479, AI150894, AI687205, AI637558, AV649134, AA594595, AW168019, AW068429, BG035056, AI091663, AI346196, AA436277, AA232178, AI923623, BE139474, AW001867, BF348648, AI802886, AI082781, AA452041, BF912320, AI138457, AI986228, AI346777, AA133011, AI085977, AA127224, AV648865, AI659420, AV648769, AW857727, AA743051, AI721055, AV648944, AA211354, BF894734, BF892701, AA156145, AI261503, AI357961, H82468, H51040, BF752799, BF948221, AA306464, AA995825, H77453, AW837617, AA155712, AA451842, BF752803, BF951602, AA631133, R86155, AI270028, BE301626, AV725027, AI538266, AA844701, BF761725, BF752808, AA064668, AI810461, C18335, AI961800, AI129748, AW381832, BE152165, AA280183, AI184909, AI125741, AA133126, AW067954, N44500, AA156399, AA322829, AI241053, BE767776, BF594788, BF951594, AA826959, T72301, BE706433, BE063208, AI380368, AA127223, BF350441, AA306328, T48747, AI911666, R31445, AW673805, AA382705, AA922112, AI688280, AA385663, BE710692, AW194218, AI984114, BF764757, AA353720, AW883638, AA130715, AI784292, BG254395, R50604, AA347146, AW016251, AA300597, BF851633, AW302862, D25743, AI351721, AA130800, AW276690, AI499265, AI537970, T69840, AA281560, AI633516, R53694, AI049970, AK025165, SS3268, X56741, X56385, SS3270, M83675, AC011742, AL137068, AC003104, AC011452, AC006329, AC008812, AL391690, AP000335, AP001725, AC009086, AC003029, AC004151, AC002401, AC011475, AP001732, AL121929, AC007386, Z99716, AL117334, AL050349, AL138741, AC004840, Z85987, Z83838, AL031680, AC005098, AC016995, AC000353, Z93015, AL162505, AC010422, AL121933, AP000215, AP000350, AC008163, AC003007, AC005071, AP001469, AC008649, AC004166, Z83845, AC006480, AC004975, AL049762, AC004867, AC005632, AL139353, AC010289, X14448, AC002351, AL133174, AP001038, AC005082, AC004159, AL033538, AC006312, AL389886, AC006530, AL031291, AF024533, AF030453, AC004673, AP000557, Z82179, AC005180, AC007283, AL158830, AC009470, AP000031, AC026199, AF135025, AF053356, AF031078, T55532, R50516, H51041, H77454, AA064715, AA116002, AA128604, AA132717, AA665918, AA709196, AI091860, and AI696317. |
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HAGGR59	292	999124	1 - 584	15 - 598	BE784070, BF002337, BF514872, AA568401, AA579465, BF967065, AW752043, A90832, and AL121674.
HOPKS83	293	999148	1 - 2249	15 - 2263	AL522393, AL533573, N99342, AL516958, AL535381, AL523241, AL535062, AL522394, AL535382, AL516957, AL523240, BE562445, BG105219, BE612965, BE312728, BF312923, BF315986, BF035342, AU118409, BE743128, AU119979, BF317065, BF315006, AI911669, BF206582, BE378738, BF314738, AI920919, BF307782, BE393973, AL517298, BG105346, BE299566, BF312608, BE336625, BE743194, BE899095, BE878702, BE314539, BE299463, AI863032, BE382388, BF793901, BE299754, BF033995, AW956858, BE366951, BE263982, BE299939, BE794536, BF204946, BG117746, AL517299, BE540363, BE746220, BE889577, BF310262, BE296433, BF032410, AI630771, BE262722, BF206365, BE881335, BE792711, AI962939, BF038482, BE736530, BE262374, BF983571, AL041532, BE222837, AI203519, BE747404, AW474516, AW860949, AI467799, BF038659, BE395887, BF205799, BF984646, BF035677, AI446105, BF033792, AI683133, BF207213, BE390734, BE880386, BE797748, AW084757, AI623575, AI198705, BF317016, AI688407, AI131027, AI951929, BF035073, BF724131, BF034309, AI680339, BF361335, W63745, AI802236, AI620096, BG117568, BE395019, BE963719, AI631270, AI017269, BE382313, AW404858, AA069776, BE217748, BE161881, AW131659, BF306325, AI146732, BF741443, AL041531, BE260390, BF811734, AW951865, BE963088, AW516123, AI126564, AI376222, AA399190, AI473708, BE298239, AI024470, AA069813, AI693963, AI038226, AA557265, BF832766, BF038178, AI146374, AI310457, AI371081, AI302272, AA613136, AI148411, AI080066, AI469677, BF315092, W58405, AA031461, AW301060, BE743266, AI366166, BF812723, AI097537, AI199004, AA479914, AW575954, BF956421, BE260076, AA156788, BE391447, BG169831, BG015923, AI814687, AA728764, AI859489, R72685, W74501, W61097, BF092603, BF092637, W58479, BF811740, AI683174, W79724, BF092611, AA974665, AI874214, AA156877, BE395715, AI568464, BF590686, BE336638, AI743500, BF948695, AI538384, AI039247, BF948453, AI149388, BE830442, BG059628, AA394042, AI625093, AW630225, BF092602, AI274730, BF446367, BE261854, AI040040, AI810483, N94374, AI446509, AI658968, AI367239, BF912314, H48071, AI018149, BE019825, AI589495, BF948722, W58139, AW511638,

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HE8CY70	294	999157	1 - 1830	15 - 1844	BE797192, BF530420, BE745297, AU117223, BF527457, AA496607, AU123909, BE872588, AW882094, BG013957, AU121939, AW351481, N79880, AW959439, F11971, AV693216, AW390117, BF931676, BF742689, AW997245, AW937846, AW800106, AW796165, BF931403, AW899383, BE700047, AL042881, AW899297, BE699796, BF819802, AA300925, BE149577, AW899299, BF743447, BE699998, AI570163, AA366791, AW899558, AU147665, AI978630, BF436552, BG010862, AW001282, BE700284, AA662508, AI635169, AW170627, AI890519, BF509786, AW130855, BE706148, AI783780, AI983256, AI801585, AA323509, AI193784, AI400088, AW009844, AI288952, AW166951, BE838621, BE819028, AW937780, AU151740, BE819006, BE838640, BF475968, AI983330, AW009053, BE819041, BE838648, AU129660, AW026864, AI199344, AI369124, AA348716, AA400881, AW117735, BE838678, AW169754, AW104779, BE904184, AB007867, X87904, and AJ011415.
HPCTI53	295	999243	1 - 1791	15 - 1805	AL535256, AL534951, AL537065, AL534840, AL532662, AL534290, AL534839, AL537766, AL536321, AL536486, AL519773, AL519772, AL534970, AL514450, AL536487, AL532832, AL515338, AL532707, AL517308, AL533170, BF966574, BF966824, AL533327, BF969218, BF312752, BF966857, BF971333, AW954554, BE741256, AU138028, BF348305, BE742610, BE746943, AL528920, BF966861, BF791964, AU134706, BE382457, BF793547, BG036726, BF206971, BF793341, AU136569, BE788895, BF793833, BE314586, BF528036, AU139364, BF315334, BF528947, BE786032, BF969765, AV705152, BG031513, BF970234, AI795976, BF966199, BE383501, AI147046, AW857216, BE784831, BF966444, BE259799, BF951728, BF527213, AL537064, H93036, BF951951, BE260158, BF951931, BE793344, BF951912,

1900

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HOPKN50	296	999313	1 - 1689	15 - 1703	AL531915, AL527360, BE903220, BF684028, BE561023, BF984727, AU129601, BF978548, AV718036, AW955129, BG257162, BF665251, BF667950, BF219086, BF038467, BE889796, BE565202, BF244797, BE644344, BF218992, BF576929, BF977553, BF976962, BF029347, BF540908, AL527307, AL531914, BF246890, BF687621, AA312280, BE940500, BE566742, AA700427, BF700934, R92253, BF977894, BF246242, BF666100, BF994346, BF001266, AI954614, BE503512, AA249583, AA188980, AI955047, N88235, AA249666, AA189047, BE857720, BF899120, AI341285, AI341287, BE543964, AF017790, Z59345, and AI236630.
HAPAI17	297	999778	1 - 1280	15 - 1294	BF036653, AW444993, AI871043, BF032343, AI807343, AW510878, AI950459, AI826126, AA447467, BE857146, BF509983, AA001932, AA446661, AI859171, AA872128, AA922684, AI083866, AW297393, AU138791, AA775527, AW262576, AI361621, BF033189, AU155748, AI933363, BE645182, H13820, AA670262, D45494, BE899588, AA228815, AA315799, AA977654, AA683497, AI586990, AU134985, BF853051, BE315005, AW890841, BE788343,

HHAUV59	298	999808	1 - 1896	15 - 1910	AW769578, BE746090, BE019946, BE612484, BF035920, BE301953, and AK001832. AI048447, BF312839, BG024591, BG117134, AI678749, BE839416, AA675912, BF307871, AI765059, AW572765, AW007348, BE675880, AI885787, AI435265, AI075277, BF934019, BF309250, AW964131, AI524738, BE297104, BE933325, AI383625, BE773064, AW269313, AI522069, BG253109, BF933881, AA675911, BE888599, BE048871, BF056045, AI827292, AI830068, AW204343, AW001183, AI633366, AW732389, AA378192, BE047068, AW899221, BE743381, BF800703, BE747149, AW501959, AA312335, AI632305, BF057718, AW001192, BE258013, AW471190, BF935373, BE545235, BF034266, BE019131, AI763226, BF305211, BG004997, BF109329, AI187053, AI970090, BE440030, AI492245, BE140494, AA460452, W00626, AI628639, BF569680, U73200, AF311311, and AK025229.
HTXLL31	299	100031 5	1 - 2567	15 - 2581	AW851285, AI307751, AW851000, AW850996, AW851276, BF111184, AI860767, AA151346, BE326805, AI670955, AI670956, AW474917, BE962693, BF057083, BF692970, AI762646, N54275, AI304947, AII129360, AA431590, AI653467, AI523805, AW816568, BE933761, N78023, AI188725, BF684485, AA429000, BE046482, AI417222, AW003359, AI690557, BE222504, AI335940, AA035134, AW627685, AI765632, AI276573, AI301819, AW026872, AA285087, AA308713, AI262798, AI000876, BE698558, AW206586, AI341622, AA035133, AA088715, AI373092, AW851281, AW367644, AA088714, AI767023, BG223175, BE939909, AW851279, BF926936, AI537741, AW19424I, AI138638, AA100747, BE010120, AI251120, BF223753, AW630988, AW166773, BF350566, N58715, AI289411, AW339814, BE243498, AA341869, AW339823, AA811859, AV650677, AW865812, AV654828, AI262069, AV657837, AI610516, BF196451, AI473271, AA431459, AW300347, AI631804, AW771246, BE153798, AW374420, AA100730, AI696300, AA135161, AW849214, AA135257, AA216017, AW865611, BE613126, AA149246, AA665876, AA341868, AW050441, AII74474, AA227718, N58433, AA249421, BF353512, AW391686, BF810441, AA535957, BE926241, BF885921, AII123195, BE174780, AI345415, BF911517, BE612556, AI345612, AI568293, AI345416, BF971669, AI654276, R36271, AI590043, AI370322, AI333104, BF763458, AL036901, AI520964, BF911521, AI583578, BG260817, AA761557, AV718258, BG179795, AI690813, AA618618, AI621341, AA814343, BG025897, BF997967, AI539260, AI918677, AW075382, AW085373, BF726255, BE439844, BE966699, AI638644, BE886790, BG257360, AV747571, AI434969, AI538850, AV756182, AI568061, AI282669, AI927233, AW955313, AI368579, BE620296, AL040243, BF970768, BF726231, AW167215, AI811840, AI500061, AW083572, AI419826, AV755821, AL046942, AI698391, BF792047, AV682387, AL039276, BG113299, AI499279, N25033, AA555145, AI744268, AI923989, AI370623, BE965129, AI826230, AW630386, BF725395, AW083573, AI866469, AW827289, AW128834, AI537677, AI580027, H89138, AI699175, AW020561, AW005029, AW263709, BG166654, AL039086, AW020419, BF765551, AL037602, BF835240, BF310166, AI679550, AI863002, AW959800, BE778453, AA749449, AW168406, BF344359, AI364167, AI635528,

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HTTHS93	301	1000424	1 - 1331	15 - 1345	AA481292, AA279864, and M78277.
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HODHK20	303	1000669	1 - 677	15 - 691	R64014, AA112737, AF176555, and AL136527.
HCHMO53	304	1000875	1 - 784	15 - 798	AV661850, BG169511, BG248919, BF206995, BE787624, BE292793, BE292947, BG167015, AA149518, AW248322, BE788739, BG165453, W68799, BG165990, AW955265, W80356, AW027341, W80631, AW006772, AW014568, W68728, AA807542, AI568522, BF436364, AA142865, AI831235, BF032073, AW006753, AA405876, AI135477, AI077951, AI038765, AI371106, AA634984, AI279024, AA927093, AI131300, BF526325, AI346693, BE351031, AI818983, AI040435, AI862834, AI672933, AA847380, AW090192, AA725414, W49698, AI308968, AI342232, AA405750, AA719097, AI222540, AA135567, AW960497, AA291233, AI038328, W78749, N94738, W17032, AA308326, AI088656, AI032894, AI022131, W49697, AA806295, AI077792, AA878384, AA704008, AI342828, BF939427, AA973620, AA708319, N89773, AI355923, AA306672, AI093528, AA056216, AI271747, R92271, AI215791, BF055447, AA724958, AA894581, AI014948, AW005009, AA040439, AI146870, AI041232, AI220135, AI184832, AI216830, AA056217, AI161403, AW371794, AA906636, AA301648, AA464688, AI682824, AA304676, AA610246, AW009773, AA303948, AA380765, AA772960, AI018514, T34735, AA534787, AW998332, AA613084, AW248085, W78953, AA303607, AW079652, AW189904, AA996272, AA364075, AA046631, AA303545, AA356933, R91942, D25597, H90498, AA700414, AA704184, AA428953, AA303514, AA642176, AA809653, AA932960, AA229336, AA872832, AI963537, AI636251, AA284154, AA781331, AA992512, BF751365, AA040438, AA228480, C20802, BE168202, and AW376045.
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HOFMT20	306	100133 3	1 - 288	15 - 302	AA833873, AI830794, AA805599, AA848012, AI701708, AI190215, AA631199, BE675217, AA811316, AA838411, BF877011, BF684599, BE044203, AI467933, AA806059, AI521761, W99354, AI423863, AW272466, N88425, W99323, AI939327, AA749159, BF224105, AW079604, BG119079, AA612797, AA456854, AW406410, AA773216, AW592726, AI005519, AW405439, AW804792, AA971365, AW361665, BF513794, AI735737, AW407072, R63432, AI916278, BF734194, BE774204, R65877, AA885203, AW804713, AI333533, AA764740, AF047002, AF086513, U89876, and AC005102.
HPAMB04	307	100169 5	1 - 1309	15 - 1323	BE563085, BF971689, BF973050, BE409548, AV706183, BF685884, BE746940, BF684962, AI739106, BG177492, AI831843, AV729983, BE889848, BE906979, BE902057, BE887637, AV702427, BF973465, BF683167, BF684203, AW439384, AV706746, AV751573, AV730781, AV730711, AV730171, BE888797, AV731759, AV723449, AV732002, AI421858, AV731708, AV726505, AV731977, AW001496, AV728270, AV731043, AV731694, BF683357, AV752043, AV732149, AV731744, BE614064, BE614545, AV725927, AV710495, AV751921, AV706724, AV752443, AV730288, AV702869, BE883121, AV731313, AV707088, AV732653, BF001456, AV710534, BF684760, AV656240, AV711496, AV710938, AV758481, AV732200, AI884472, AV731275, AV727103, AV701611, AV659189, AV752447, AV723452, AV757088, AA654332, AV730165, AV702798, AV707783, AV730778, AV704592, AV730816, BE512957, AV758133, AV737377, BF127820, AV732353, AV710906, BE881971, AV702409, AV753374, AV726674, AV756895, AV755473, AV728872, AV711240, AV757887, AV733303, AV760693, AV730859, AV710417, AV761002, AV731915, AA587899, AV755874, AV662191, AV710375, AV732155, AV710562, AV752993, AA203213, AV751555, AV732089, AV704974, AV711413, AV713945, AV727932, AV652156, AV658362, AV763440, AV761270, AV728844, AV710825, AV756053, AV737379, BG030466, AV740829, AV729129, AV705280, AV737380, AV745415, AV706357, AV739275, AV726738, AV702637, AV711571, AV725369, AV705263, AV732746, AV702354, AV738275, AV745906, AV711344, AV746276, BF036894, AV732255, AV711567, AV729568, AV711274, AV703012, AV707171, AV752684, AV723195, AV707686, AV705020, AV763171, AI149441, AV704611, AV707117, AV710622, AV706035, AV731653, AV687176, AV701237, AV757823, AV713377, AV758003, AW873154, AV721645, AV709407, AA587336, AV701320, AV709897, AV728777, AV757553, AV710909, AV759183, AV710394, AV710086, AV704916, AV737413, AV704924, AV710941, AA918519, AV730449, AV709969, AV736429, AV726067, AV740404, AV714368, AV724987, AV702954, AV709935, AV710935, AV726624, AV697638, AV731884, AV726520, AV709935, AV718341, AV756386, AV712324, AW080368, AV647654, AV710090, AV706104, AV729263, AV728715, AA812298,

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| HSCLR05 | 327 | 1002807 | 1 - 980 | 15 - 994 | AI700438, AI796647, AI824691, AI829972, AI865678, AI915175, AI928522, AI969992, AW026267, AW131547, AW198186, AW261952, and AW276716.
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| HVVAO74 | 328 | 1002811 | 1 - 1150 | 15 - 1164 | AL517746, BE314392, BE685767, AL517745, BF663864, AL527798, BE901139, ALS26086, BE732253, BE730581, BE273465, BG033928, BE274994, BE793389, BE735117, BE736161, BE274909, BF025763, BE797068, BF793676, BE795151, BE276067, BE799798, BF568859, BF797444, BG031038, BE901143, BG027437, BE898049, BE733741, BE731033, BE797663, BE730448, BE904242, BG180030, BF058792, BG036034, BF025707, BE410862, BE618538, BE547475, BE728447, BF568805, BE281217, BE270552, BE791501, BF032884, BF983027, BF679076, BE389168, BE880439, BE409460, BF528780, BE795806, BE275489, BF685111, BE275834, BE880404, BF662872, BF305445, BF027645, BF306589, BG032276, BG025207, BF686113, AW960462, BF568562, BE262720, BE883448, BE785807, BG249555, BF791670, BF686641, BG030409, BE276910, BE259215, BE382696, BF037141, BE794633, BE276938, BE266608, BE389026, BG034257, BE732487, BE276779, BE790192, BE268263, BE909056, BE729122, BE728799, BF128006, BE872841, BG031367, BE900561, BE268310, BE410738, BF854010, BE388364, BF568658, BE018670, BE514363, BF237574, BE886108, BE387313, BF308798, BE267700, BE389685, BE385517, BE389304, BE296678, BG116916, BE618919, BE909775, BE267922, BG231768, BF573426, AA075347, AW954753, AW249908, BE279555, AW247787, BE387389, BE311424, AW674345, AI924518, BE881839, BF854355, BF854139, AA099137, AU150900, BF858145, AW085546, BF858158, AA810641, AI094712, AI983831, BE208512, BE537365, AW848677, BE543319, BG111959, AA121335, AA776475, AW162889, AA768161, AI985750, AA075600, BF127877, BF858133, AW104662, AI587554, AA832303, AW974204, AA827218, AW072974, AW732057, AA782428, AI818506, AI923790, AW073752, AW262769, BF925345, AI094923, AI683905, AW512935, AI289229, AW305043, BE042722, AI276197, AA806259, AW512367, AI493600, AA569388, AI346741, AW475015, AA946821, BF515131, BE798771, AI432816, AI263880, AW302618, BF063047, AI744754, BE939146, AW439553, AA629031, AA009635, AW007234, BE350557, AW674453, BE336843, AI538381, AU149699, AI274098, AW966999, AI440437, AI799716, AI127260, AI799164, BF303754, AA554181, AA554976, AA253120, AA761082, AW089894, AA554583, AI344421, BF962198, AI749787, AW193957, AA707869, AA903212, AI311788, BE538355, AW246180, AA826402, AA631886, AA280597, AA206821, AI300392, AW163603, AA995293, AI245900, AW769752, AI749149, AA847378, AA253380, AA281999, AW575857, AI357033, AA653882, AA679720, AI936832, AA253406, AA992132, AI245858, |

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HVVBI81	329	100312 6	1 - 1033	15 - 1047

HVVBK18	330	100315/5	1 - 1070	15 - 1084	Accession numbers
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				Second block	BF305151, BE735037, BE747506, AU142350, AW007738, BF969509, BE536135, BE887112, AV762678, AI189162, BF304178, BF685859, BE904945, BE910235, AI831230, BF796121, AU129499, BG028749, AU129917, BE253409, BE383400, BE786396, BF038236, AU126872, BF211966, AW151710, BF794652, AI025755, BE791012, BF308698, BF573136, AI828892, BE791105, AW131497, BE350874, AI680282, BF345258, BF215074, AI581180, AW778828, BE567149, BF103688, AA706900, AA583905, AI185849, BF184091, AU123046, BG113431, BF382100, AW664218, AA737763, AI338605, AI672800, H97858, AA479594, AA482100, BF242491, BF107188, BF215495, AI262005, BE865968, AU127161, AA443583, AA480133, AA393815, AV662236, AI002710, AA722765, BE536238, AI831666, AA477032, AU151980, AA878562, AI142353, AI689584, N35547, BF928258, AA492405, AA284877, AI580858, AW993389, AA284572, AA862518, N28814, AA243320, AD243915, AI304511, AA152127, AA131821, AA476920, AI833193, N28814, AA243320, AD243915, AI304511, AA293499, AI342052, AA132004, AA293112, AI140958, AA443648, T56244, AI281588, AA453009, AI863847, N53065, AI186249, AI312511, AA761708, AA865831, AI272898, AA131997, N44572, AI206382, AI220411, AA490063, N23342, AA962083, AA150044, BG059293, AI591408, AA534684, AA630630, AI935160, N99371, BF573103, AA477433, AA669307, AA393918, N26856, AA865189, BF941869, BF673621, AA099578, AU149842, AA774040, AV721930, AA912358, W39527, BE247542, AV741784, AI766710, AV755538,

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HOFMS19	331	100322 2	1 - 420	15 - 434		AW629632, BE906747, AW238814, BF244456, BG035566, BE896159, AL523247, AL526987, AW161580, BF034231, BG110736, AL525505, AA594515, BE350096, N74741, H91423, N35197, Z72000, D83745, D64110, AP000432, AF087037, and AP001670.
HSCLM55	332	100322 4	1 - 1080	15 - 1094		BF036860, BE874607, BE613153, BF131283, AW024416, BE218012, AW662566, BG033319, BG178742, BE677139, BF038607, AW992000, BE697884, AI421202, AI434791, BE857176, BE858592, AW960360, AI309982, BF752463, BG122649, AW572665, BE697883, AI769534, BF432791, AW473625, AI393963, AI378930, AI492647, AI769524, AA953114, AI380180, AI420285, BE884521, BE697886, AI805717, BE697879, AI077552, N26060, AI678958, BE205797, AW627557, N40424, BE790024, BF110838, AII90662, AI613423, AA976041, AA581509, AA776498, AI268866, AI291641, AI289100, AI208759, BG113949, AW466940, AA278467, BG121150, AA665834, AI341899, BF940423, AA315414, BF752452, BF823045, BE765726, AI671697, AI961637, AI613432, AA989174, BE813958, BE765666, AA235080, BF438697, BG171186, AV739357, AW802718, AI127470, AA603717, R80986, AI085843, AA235209, AA993834, N80556, AI160297, AA421270, AW863774, AA187209, AI205566, W39334, AW277106, H59979, AA045407, BF752395, T75129, H09069, W52459, AA503424, AW971006, F10405, BE005409, AA421317, W52458, AA723427, AW189559, AA045301, H09070, AA256210, AA503121, AA921301, AI819232, BE831073, BE831048, AA956475, AA303086, H81373, BE831070, H23151, AW593442, BG166357, W15379, AI003129, H57853, H80453, AA587453, F12797, BE831071, AA811971, BE091742, AA379841, R80786, AA737085, AW029021, BF752382, R38552, BF354290, BE150019, T48991, BE831072, BF195285, AA503131, AA256353, F17470, AI424220, BF965507, BE929386, AI431521, AL038986, T48990, BE932245, AI381715, AI424511, AI569722, AA835425, AV757066, AW997044, BE143663, AW337583, BE065144, AA558437,

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HETTU23	333	1003706	1 - 2214	15 - 2228	AU125582, BF338909, AV721101, AW960032, AU149216, AI479301, AA551070, AI765789, AI888129, BF689666, AW300579, AI561067, AI952933, AA699496, BF851750, AW631269, BF223599, AA977132, AW003323, AA227895, BF056547, BF056388, BF851745, AW628961, BF851053, AI499649, AA227595, AA557146, AA005279, BF999437, AI124737, W88953, BE139597, AI866470, BF690562, AW392978, BF849227, BF999431, AA524236, AA992176, AI817652, AI933331, AA005195, BF999425, AI381813, BE221278, F36543, AW087421, AW167326, F30327, BF850865, AA953702, AI242910, AA367411, AI363751, BF834497, BE048256, BE708177, AW379838, Z42044, AI351935, F01568, BG055860, AI691123, BF772332, AI783542, AI131405, W05190, AV702728, AX040389, AX040390, AK022692, AB033104, AL133630, AX040393, and AF200815.
HNOKB73	334	1004480	1 - 1202	15 - 1216	BF672055, AI828433, AU145153, AI909113, AI831421, AW471345, AI909126, AI922310, AW511425, AW151865, AA861631, AA993238, AI909131, AI688870, AI922300, AI310077, AI620982, AI272867, AW628057, AW057746, AI623341, AW117681, AI267991, AI818511, AA487193, AA291847, AI222864, AW190743, AI914551, AI692825, AW189277, AW304917, AW055334, AI278911, AA661670, AI969389, AI909123, AA894780, BE049422, AI453695, AA911888, AI571659, AI862021, AI621161, AW627585, AI569192, AI624941, AI571426, AA194152, N67602, AA688382, BF857139, AA486838, AA291725, AW263429, AI653841, AW020368, AI453306, AW090321, N64130, AI279927, AI249255, AI926018, BF884826, AW390274, AW294466, AW361842, AI696774, AI275762, N45716, AW089415, AI262331, AI811607, BE939116, BF750734, AW608182, AI624961, BE939114, AA367257, AI687265, AI698996, AA297958, BE937479, AI701193, BF744029, BF858828, R82992, AI909128, AW167711, AW198062, N48994, AI866006, BF882878, BE940672, AW816180, BE818295, AI909134, AA194103, AC018634, AF026692, AF117709, AF140346, and AF012891.
HODFB06	335	1004583	1 - 748	15 - 762	H99646.
HODJA76	336	1004619	1 - 447	15 - 461	AW977567, AA907333, AA814897, AA836609, AC005567, AC002565, AC005480, AL356299, AC005520, AP000066, AC073593, AC005736, AC002394, AF196969, and AL121890.
HODJY60	337	1004625	1 - 2212	15 - 2226	AL515853, AU133237, AI654122, AU126018, BF058308, AV725133, AW183152, BE671606, BG253097, AI948488, AI950097, AI927294, AW969418, AW275334, AI076608, BF940262, BE535180, AI417857, AI952810, BF959274, AI417041, AI420844, AI379187, AA723579, AA913702, AW394103, AW949335, AA313310, AI590307, BF979295, AI093193, AI313185, AU129447, BE253357, AI017439, AA313310, AI590307, BE890745, AI346472, AA962778, AI276140, AI985266, AI336030, N98729, W96013, AI299081, AI092621, AA233883, AA232829,

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HODFB03	339	100463 1	1 - 775	15 - 789	BG034836, T75233, BF572603, AI557036, BE697488, AL513776, AI216670, BF747008, T10253, BF745947, R61073, BE843957, BF746454, BE769157, BE766105, BE714429, BF744295, BE765690, BE766038, BE766098, BE766167, BE714404, F12922, BF745931, AA434502, AA465014, T05292, X74331, AJ011607, D17385, D13545, and AL121958.
HPMLN08	340	100463 2	1 - 1380	15 - 1394	BE709782, BE832694, BE709778, BE707630, AA430593, H80277, H80291, AI652995, BF383125, AA193566, AU158293, BF747189, BG260723, AA243826, BE491960, AW063724, BE222441, BE502344, AA164268, BF196258, BG170263, BE932825, AA508073, AW294783, AU155794, AI819266, BE169617, AI468739, AI082255, AI417116, AA385339, AI382168, AI701563, AI031661, AI436306, AW576939, AV715887, AI709346, AW195764, AW044458,

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HODEH08	341	1004633	1 - 364	15 - 378	W44489, BF344927, BE385927, BF683537, AW406647, BF214121, BF671254, AW248978, BF675993, BF791283, AI083656, BE783427, AA340719, BF038972, BF907681, AL523352, AV697332, BE791818, D31255, AU127744, AA370162, AA488592, BF027044, ALS23351, BES13340, BE270073, BF446423, BE397826, N27234, AI582770, BF095260, AA410725, AI817900, AW799742, H29999, AA331358, BF675835, AI580242, AA358813, AA370640, T97410, R07253, BF210442, AW248314, N33990, N25001, W56853, N33751, AA360045, AA371439, N28848, AA344067, BE813738, BF680023, N27913, AK001410, AL136131, AF114816, AF114817, Z59378, Z64078, Z64079, and Z54696.
HEGBF25	342	1004635	1 - 1333	15 - 1347.	AW960487, AW170566, AA463471, AI590283, AI479619, AI356285, BE671701, AA443030, AI279424, AI475890, BF948785, AW105033, BE646579, AW469714, AA282026, AI870381, AI692574, AI357242, AW135396, AI306543, BF929181, BE856482, H24386, AA055932, AI125211, R60550, AI934615, AIJ79010, AA902204, AA557305, AI860938, AI566567, AI420407, D31141, H24399, AW136075, AA913241, AA055381, AI251746, AI249885, AA722942, AA328301, AW204848, AA748866, AA324275, AI698815, AA524094, AA729225, AW206983, AL041606, AA902634, BF091853, BF086880, AW137312, AL041448, AA865160, AJ009770, and AF069736.
HODJB51	343	1004643	1 - 441	15 - 455	AV761433, BE328286, AV658560, AA468371, H52948, AA297662, AA419107, AA419014, BE545345, AA904211, AA313075, BF927768, AI268019, AA194858, BG057757, AI344962, AA64571, T74524, BG169404, AA468505, AI801563, AV754716, AI887235, AV720672, AL096791, AC008745, AL022238, AC009477, AC003982, AC008989, AC002477, AC006064, AP000511, AP000167, AC008623, AC020908, AF165926, AL138807, AL157877, AC006026, AL121890, AL109627, AL109963, AC020552, AF254983, AL354720, AL031662, AC005822, AC011497, Z97985, AL049834, AL136170, AC005399, AL157838, AC005102, AC008753, AL159997, AC002350, AL005829, AL136000, AC004166, AL163201, AP001719, AC004685, AF168787, AL031281, AL031282, AC008764, AL022163, AL133448, AL022316, AL135744, AC010328, AC022150, AC006088, AL160231, AL078461, AC008569, AC006538, AC008372, AL049643, AF111167, AL138752, AC004821, AC006312, AC005914, AL162430, AL109825, AP001660, AP001711, AC005529, AL136418, AC004125, AL031121, AL050335, AC002511, AC019227, AL109806, AC011442, AL196779, AC004840, AC018720, AL009051, AL133246, AC006101, AC006001, AC008521, AC007021, AF190464, AL138832, AC016543, AP001748, L44140, AL139100, AC004890, AL355094, AC004895, AL117694,

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HODEC38	344	1004648	1 - 2163	15 - 2177	AA461384, AI638162, AW974192, AW157286, AA702534, AJ003425, AW161799, AA701970, BE258604, AW162461, AI692285, AW265397, BF110566, AW163084, BE504104, AII26148, AA158404, BF110968, AJ003426, BF436206, T78960, AA573177, AI934177, AW163340, AW161342, AA158501, AW160450, AA476353, AL527124, AL523845, AW385571, BE620912, BF347756, AL524949, BF965010, BF835996, BE620514, BE392373, AU127111, BE925487, AI207818, AP001759, AP001469, AK026578, AB005543, AB011144, AJ010089, and AK001370.
HODIQ24	345	1004660	1 - 3410	15 - 3424	AU132377, AU132354, AU137607, AU120802, AV725504, AV727393, AI907846, BF431871, AI971541, AW956982, BE542598, BF977694, BF218040, BF194954, BF572088, AU152685, BE468132, AW274295, BF326712, AV728832, AI290910, BF696191, AI458284, AA918601, BF132210, AI299489, AI306415, AA947581, AA042992, W35163, AA779334, AW470321, AW028573, AI625411, AA255546, AA451702, N40098, AA115015, BF431827, AI248585, N24288, BF087866, AW138804, H84453, AA885588, AI637730, AW970127, N32948, BE464747, AI631137, AI638290, AI637904, AW470388, RS2158, R85459, AV704648, AW295739, BE719830, AAS14606, BE714126, BE813424, T71262, AA708740, AU156698, H50037, AI085037, AA256661, AI587226, BF821343, AW169353, R23147, AA115014, AU151591, AI701772, AA493555, H98720, BF845314, D81437, AA946917, AW168776, D80972, AA368643, N27158, AW805841, AI922080, AA931683, AA977047, W20387, AW130610, AA247897, BE827896, AA962286, AI217571, AI702845, AA975966, AW002803, H49993, AI002410, BE964392, AA042824, AA902321, H84454, AI918223, BE813423, AB037840, AK001495, AX034574, AK001892, AX009324, AX009323, AX009319, AX009322, AX009321, AX009326, AX009318, AX009317, AX009325, AX009320, AX009316, A91748, AI656001, and AI656713.
HVVDD56	346	1004887	1 - 2637	15 - 2651	BG120635, AA643174, AI621233, AW978320, AI309847, BE813594, BF594198, BF208601, AW080955, BG249103, BG249038, AU154737, AI912367, AI969341, BE813560, AA083478, BF093613, AI249906, AA720586, AA808246, AI375180, BF131476, AA702882, AI356456, AI082207, AW951861, AW026304, AI378093, BF922917, AI275444, AA534350, AI074286,

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AW368316, AI500442, BF246033, AA835773, BF915035, BF915580, AI276347, AW407653,
BF925410, AA419365, BE241544, BE161953, AA337666, BF928601, AW129623, BG055702,
BF090409, BF830828, AI582973, AI365477, AW366607, BF893072, AW087698, BF903219,
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and H60225.

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| HTHDV01 | 347 | 100495 0 | 1 - 2166 | 15 - 2180 | BF343723, AI971257, AI922196, AI810067, AA932024, AW195330, AI207838, AV722680, AI346751, AV758001, AW608044, AV713548, AW073373, AW009706, AI590359, AV717241, AV714666, AV687702, AI891081, AI672451, AV649298, AV722097, AI381534, AV652022, BE220350, BE048347, AI573282, AW874080, AW024264, BF337994, AW874253, AI870222, AV760953, AI685727, AI627992, AW360985, AW607239, AI784604, AI950829, AV652082, AI925643, AI962991, AV722223, BF855049, BE046054, BF691186, AV717072, AV720361, AI885957, AI017462, AW664593, BF526890, AW316704, AI248184, AA442759, AV713149, AI634947, AW770406, AI697419, AA477579, AV662094, AW513222, BF854957, BE840522, AI701954, AI801820, AI982678, AI972075, AA401957, AI460284, AA932526, AI570388, AI453821, AA662536, AV697674, AW276098, AA922678, AV759269, AI005625, AW510478, AA576407, AV747778, AI800205, BF853617, AA922678, AV759269, AI005625, AW510478, AA576407, AV747778, BF853756, AI469437, AI261318, AI799500, AA878863, AI889320, AA947992, AI624670, BE840523, BF854954, AI985773, AA746085, AW022137, AA583463, AA514238, AW750674, BF854908, AI610837, AI623966, BF901154, AA566089, AA507952, AA428304, AW805573, AW794742, AA429721, AW768483, AW518282, AI272071, AW845414, AW873164, BF063059, AI537788, AW024169, AA485546, AI373585, AA745909, AW960245, BF853826, BF854206, AA996237, AA837997, AI268596, AI074096, AA496403, BF678821, BF854956, AW794752, AI557549, N67917, AI659705, AA284642, AA887178, AA280404, BG222536, AA985597, AA496353, BF914755, AI268601, AV758482, BF055969, AI954543, AI278945, AV717009, AI356974, AA505878, AW996924, BF477592, BF724668, AW243755, AA620979, AV755843, AV757256, AW022260, AW022208, BF854906, AW877772, AV656426, AW020000, AV654223, AW372625, AI348684, AV742513, AV756665, AA617991, BE940601, AI630329, AI537593, BF828311, BF913462, H30122, AA777812, AA844283, BF914742, AI244382, AA290764, BE041558, BF829019, BF829005, N66497, AA864382, AA757380, BB813852, N23726, BF880804, AI857753, AI479529, D57403, D57829, N68137, AA631437, AA351062, AV734554, BE697034, BF378599, AA937471, N36944, D57395, BF093861, AI557550, AA975329, AA249247, ALI34796, H63166, AV658281, AV656501, AW118330, H27631, R79476, D58166, W95944, AW805669, AW021936, AV744824, AV733262, AV725042, BE176841, BE814031, AV654387, BF828021, AW021706, BF476645, AA618186, D58096, AV749166, D57778, BE929600, BE938157, BF357923, N23730, T27640, D57449, BE174681, AI245094, AW579397, D57757, AA040944, D57518, AI678887, D57468, T27639, AW939698, D58277, AX014320, K00650, I96207, AF111167, X06769, V00727, J00370, AF033012, AJ132510, AF061881, M37000, M18043, AB022276, AB020214, AF069515, Y14808, Y15747, AB022275, AF029166, AX010026, S60557, D12551, I24430, AR040781, S65140, T61093, R10192, R10215, T97774, T97881, R13148, R31511, R32943, R33906, R33921, R37053, R44148, R49880, R44449, R79209, R84834, R85530, R95977, H71003, H71015, H83387, H83388, N36936, N52416, N62388, N72823, N73801, |

HVVDJ95	348	1005153	1 - 1286 15 - 1300	N99428, W74016, W74018, W96348, AA019816, AA020837, AA020879, AA470397, AA493243, AA515358, C03207, C17030, C18106, AA174191, AA402051, AA434146, AI093633, T16515, F01435, F01912, D45546, F05184, F07701, AI244117, AI559806, AI567603, AI695592, AI858769, AI933993, and AW337322. BE744159, BE735588, BE562290, BE543899, AV703356, AW951513, AI869315, BE397694, BF344590, BE222785, AA147088, AW888880, AI421559, BE048028, AW131473, BE904977, BF593805, AI860630, AA307132, BE693231, BF195558, AI859194, AA554706, BF848110, AA779596, BE671642, BE671636, BE772850, AI817963, AW131732, AI131006, AI131235, AI298506, AW360926, AA132115, M79142, AW085550, BF827911, R32144, AA996236, AA827499, AW961823, BF847182, AI864171, AI810869, AW083177, AI279054, R21586, AI683076, R32143, R49059, AI682910, AW959257, BF340401, N48917, BE764109, W07596, H03637, T32822, AA902240, AI951120, AI302680, AA031941, AA555053, BE502039, AA557656, AI795815, AI874400, AW806659, AW020184, AA318860, AI909782, AA327450, AV655438, BE242543, AI935791, AI702044, AI913289, BF432516, BF848050, AA132349, R49185, R33114, AI948650, F03268, N46415, AI419183, T29712, AA147145, N20886, H19201, AI539258, BF739937, AA904255, AI356503, BE140381, AA348337, AW806516, R62224, H03636, BE220594, AI636387, AW515881, R33262, AW166586, R64601, BE328664, AW016275, AA581451, N78707, AI915762, BG117733, AI540261, AW997810, AW889502, AA319725, AA985516, AW169409, AA319821, BF340433, AL118620, AA348452, BG058342, AI962093, BE719358, AW883253, BE719354, BE885116, BE735840, AC000395, AB037729, AK000242, AK024575, AF295773, L07924, L07925, AF295780, and U14417.
HODIY29	349	1005236	1 - 2101 15 - 2115	BF850023, AA904772, AI936458, AW328025, AV751671, AW629145, BE695496, BE695579, AW024363, AI198959, BE695471, AI349413, AI341534, BE695595, AW511051, AI218318, AI087061, BE695610, AA609271, AI366723, BE695599, BE695474, AI093675, BE695613, BE296186, H58337, W03883, AA279464, N65952, R91414, H78868, AI630666, R70876, W79400, AW382181, AA362029, BE895116, BF089826, H28788, AI480262, AW117400, H58726, W79513, H80111, BE764221, BF365918, BE068813, BE695504, BE695512, BE764265, BE695494, H63582, H63540, BE764277, T05675, H28762, H66903, H66858, BF365940, BE764232, BE816201, AL079551, AL079533, AA094526, N94211, BE271751, BE768528, AU126895, BE816196, BF331621, BE764248, AA279129, R15357, BE783140, R17312, AW805680, BE545692, BE778796, BE764309, AI783879, AL079534, BE695609, BE774755, BG170522, BE695566, BF875922, BE708280, BE695475, BE695472, W42817, BE815092, BE768557, AI567131, BE695450, BE695612, BE695598, AA091206, AW837053, AU128777, BE816203, AW887482, BF305224, BF918481, BF968385, T77720, AA568428, AF139897, AP001717, AP000114, AB028942, AP000303, AP000304, AP000046, X63071, X63753, X63754, X71604, AL356276, M36428, AF193607, AF193597, S47241, AF193600, AF193598, and AF193599.

HOELP29	350	1005359	1 - 1308	15 - 1322	AL530557, BE791049, BE618996, BG257624, BE731913, BE886771, BG114069, BG116664, BE856856, BF797021, AI741539, AA877855, AI800932, N32038, BF432001, BE898057, AI694373, AI808071, AA262486, AA903806, AI138931, BG255357, AA468735, AA470769, AI138466, AA954750, AI151371, N29514, AI189798, W49771, AA814845, AI183296, AI357130, W70171, AA280787, W69944, AI186447, W69834, AI499111, BE908525, AI086208, AU129984, BG025691, W69906, H87149, AI469927, AW971625, BG250733, BF325889, BE141551, AL527393, N57458, BE696978, BE696980, AA035645, BE891620, T48534, AI188861, AI160592, AW516114, BE327105, W30843, BF745219, AI619930, BE763528, D78335, AB030700, and AA280793.
HWLFG04	351	1005384	1 - 1040	15 - 1054	BF309040, BE727908, AW080447, AI813764, AW156901, AI624222, AI954032, BE727602, AW473780, AI861975, AV711593, AW511541, BG117850, BE892765, BE301686, BF941321, BE727148, BE877682, AA669760, AU136925, AA604124, AI186207, AI951492, AI016700, AI125916, AA081009, AI673719, AU160400, BF211379, AA173953, BG033959, AU146424, BG164551, AA666305, BE873924, AA100874, AW304292, AW471151, AW513002, AI580161, AI078833, AW068925, AI811621, AA666358, AA534849, BE786612, AA662226, AI432440, BF732965, AU150305, AI139223, AA130980, AU155685, AA707346, AA724885, AW474759, AU157841, AL120428, AV711263, AI141060, AI244874, N66401, D53110, BE834286, T57109, AI288812, BG104684, AA099214, AU156023, AI537130, AI167469, AW263441, AA173643, AU157341, AA187544, AI357914, BF084240, AA938617, AA632832, AA157933, AV714164, T33607, BE834321, AA807994, AI381658, BF086680, AA634268, AA315460, AA224251, BF086663, AA557374, T90497, AA639802, BG117431, BG118933, AA826543, AA551431, AA282337, BF726089, T69431, BF981803, W28397, AA948655, AI128023, BE727393, AA256923, AA130975, AA565098, BE728536, BG029544, H89626, BF882766, AA872943, T36145, AV748147, AA632190, AV704174, AA330174, AA130436, AI686635, AA130437, AA076099, BF086506, AA729737, AW392904, T92925, W04825, BG253169, AW802882, AA009665, BF086506, AA356814, AI263840, BF211293, AA070450, BG166290, AA810386, AW392890, AA235380, AI954229, AA041269, AL520247, AA481985, BF215385, AI744430, AA928912, AA731542, AI208724, AA777668, T90593, AA887638, AI559330, AI801006, AW975764, W46171, R86972, W44443, BE928509, C02751, T25894, AI581770, BE168358, AA084634, AA358862, AW392839, AA771848, BE764142, AA894945, BE1822212, BE543242, T10776, AW392836, AA394224, AA878485, BG168089, BE163936, AI582590, AA197336, BG180181, AI833003, F35679, AW768788, AW190598, AA398137, AA481889, BF726929, AI826585, R27279, AI557490, BF061257, AV702131, AI766834, AI033007, BF738475, AI811690, AA627813, BF086524, AI241386, AI248407, AW820874, T93041, AW392848, W46535, AU120330, AI096806, BE876198, BE890386, BF913319, AU137916, AI833030, AV751052, F23284, D25873, BF082805, AW852076, AA301281, AW959407, AX014875, AX017985, AF090891, U33821, AF268075, AK000098, and AC004549.

HYAAC49	352	1005511	1 - 769	15 - 783	AU139442, BE569198, AU135922, C75131, AV718280, AW390194, BE865872, BF240773, BF571465, BF183939, R24772, R14521, BF184986, AU127909, BE380148, R35572, AA385863, BF795902, BG115301, N83156, BE560295, BF243095, BF805901, BG037006, W86403, BE890587, AA322376, AU128221, BE885883, BF218257, AA447000, BE171121, BF240001, BF666929, BE886808, AA496772, BF830589, BF102486, BE548882, BF211322, BE154533, BF434758, AI983937, U87166, AF001628, AF260262, AF006516, AF176784, U17698, AJ277071, AJ277068, AJ277067, and AJ277069.
HCOOA71	353	1005843	1 - 680	15 - 694	BG032088, AW674754, BE793744, BE301427, AW001177, BF796457, BE222626, AA676823, AW245046, AI742447, AI086381, BE382943, AI038253, AA631108, AI432174, AV740792, N36161, AI354418, AI138537, AI435564, AA622991, AI432169, AI288565, AA412597, AI298942, AI628257, AA769383, BE731107, BF025815, AA262361, AI333049, AW138279, AA489757, AA426358, AI185088, AW071200, AA678330, AW974396, H81770, AA383464, AA325218, BF663601, AI826476, AI570948, AA758452, AI659519, AW975605, AA953294, AI351414, N94604, AI086406, AI858778, BG222816, AW474212, AI351407, AW328179, AI201546, AA426521, AA649981, AA700598, AA489649, AI085660, T99013, BE770129, BE770165, BE387301, AA827478, BE770154, AI382758, H29471, AW629408, AA852445, AA559102, H99900, F18425, BE018615, AA377901, AA714184, BE792052, BF932098, AW797213, BF898501, BE302202, R07444, AA359193, AI797445, AA639044, BE206518, AA357798, AA648070, BF765959, BF768917, AA094140, N57963, AW361814, AV744851, BG222117, AI745563, BE727188, BE170556, BE407088, BF305624, BE513977, BF129902, BF845366, AI795892, AW363952, U46389, AA357516, AA373724, AI401076, AA357714, Z96932, AF116691, I89947, and AA232683.
HOUFB45	354	1005974	1 - 866	15 - 880	AI825882, AI696873, AI738563, AW103989, AW613147, AI268306, BE793730, AW770856, BF061575, AW051548, BF739812, BF958201, BE273154, AA858218, AI090497, AI075184, AA815445, AI381954, AI284912, AA235085, AI571911, AI218189, AA885429, AA626489, AA922962, AA424585, AW078477, AI832643, AI743823, AI221668, AI690707, T34988, AA769343, BE348685, AW769161, AI952634, AW452891, AA976512, AA687740, Z40231, AA235212, BE246574, AW572211, BF797899, AI014979, AW603755, T82196, AI766582, AI915196, AW078592, R43900, AI869134, AI524517, AI635964, T35732, N24554, AI866546, BE074731, R43261, T32374, BE265660, AA206547, F01511, AW079587, T82197, BF530913, AA235496, AW450279, AA625573, BF337280, AW979330, N33999, AI312812, BE273206, AA693982, BF927110, AA400118, BF892007, BE874163, BF814420, AW262593, AI471271, BF892003, AI003314, BF904265, BE965707, AI174819, AI344935, AV712612, BG257545, BF934149, AA648447, AB002328, AF072441, Z92546, AP000353, AL390166, AC009361, AF061947, AF308801, Y09972, AF130110, AL049430, AL050389, AF056194, I46765, AF090900, Y12226, AB029066, AL133028, AL133015, AK000502, AK026104, AF151076, X63530, AF114168, AK027114, AK026600, AF175903, AF177340, AK000285, AF124435.

HUSJI14	355	1006018	1 - 2396	15 - 2410	AB052191, AF202636, Z48796, AK027200, AX015416, AK027137, and S69407. AU125044, AU125106, AU124136, AU132115, AU142302, AU123505, AU128772, BG259270, BG104503, AU127066, BE877587, BF102972, AW961540, AI819062, AW137042, AA218870, AW268435, AU159649, AI914414, BF571164, AW965326, AW021609, AW859986, AW960460, BF667479, AW859994, BF571923, AI290998, AU132875, AI805453, N42226, AA453340, AI143590, AI961984, AW965469, AU133448, AA534880, AA805995, AA478879, AA315171, AA478622, BG250380, H10486, BF910659, AW083409, AI279728, AA022968, AI859003, AW820411, AI971338, W27642, BE940037, R35417, BE940013, AA810040, BE940009, AA909119, R71284, H30337, AI743639, TI7061, AW820415, BF913401, BE698731, H97022, BF243145, BF002853, AW604825, R13747, BE174730, AA332955, AA600911, AI086130, T87426, AA330024, AI092372, AI239430, AA461371, C01331, AI224398, N41982, AW752484, AW752492, AW051138, R14406, AW452485, AI439708, BE694190, T99701, R08328, AA091602, R58882, R16157, AW500586, AI382652, BE934080, AA252088, AI061448, W27426, BF088818, R08381, BF088814, BE880142, AW820413, BF589424, BF229364, BF913396, AI620838, BF088832, R19923, T99096, BF229365, AU154390, AA327941, AA190558, T77110, BF356534, AA738469, BE856271, AI697789, AA588155, AU151002, AU148839, AI086357, N30259, AI624125, AI859524, AA464855, AA946796, AW470143, AU153720, AW368233, R44163, AI183953, AI092159, AI803728, AI418332, BE173781, AI038144, AW022885, AK022572, AK001676, AK001754, and AF052123.
HMCDB21	356	1006055	1 - 556	15 - 570	BE464861, AI652330, H91834, BE703983, H91879, AA759248, AA769818, AW593481, AA902687, BE972738, AW235775, AI379370, AA974129, AF100774, X57477, X57689, X57476, X57688, and U79668.
HSDEY08	357	1006142	1 - 1956	15 - 1970	AL537989, AL533695, BG170919, BF972004, BF345100, AW026975, AI937448, AL532622, AI806907, BE378539, BF967058, BG115124, AI869308, AI150559, AW007470, AW149368, AI360337, AI479472, AW411234, AI199048, AI199509, AI300927, BF341774, BF688178, AW511458, BE296272, AI655154, AI652153, BE270387, AI377853, AI609567, AF147181, AF147185, BE270395, AI500244, AW965710, AI878920, T06902, AA354921, AI027477, AA077697, AA077739, AA077344, AA076971, AA506828, AW885532, AA357567, AW885629, BE811342, BE773565, AW002991, H30179, AA077004, BE269771, AA077615, BE701815, R73305, AA077477, BF953004, BE811355, BF509539, AF147184, BG149726, BE773538, BE833501, AF147190, BF247437, BF090978, H45089, AA349590, AA077534, AA402202, AA405835, AA402203, AC021097, AC005486, and U66619.
HOOJT92	358	1006215	1 - 2631	15 - 2645	AL044704, BE271772, BF796439, BE746386, AL044621, AI051986, AA127622, AL046283, AV702820, BG121331, BE746300, BG176577, BE747570, BG035456, BE857140, AA121525, AL044622, BB315418, BF796863, AA046983, AI038252, AL040929, BF431928, BF819832,

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| HNORE03 | 359 | 1006250 | 1 - 848 | 15 - 862 | AC002312, AC004815, AC007792, AP000150, AC006088, AC005520, AC005874, AC010451, AF134471, AL160176, U91319, AL022393, AL139099, AL118520, AL133454, Z85987, AC020906, AC011484, AL133288, AL049553, AC004414, AC008482, AL354653, AC007193, AB020861, AC006480, AC018642, AC003982, AC007324, AL353680, AC004971, AL391595, AC004166, AC002565, AC008753, AC010412, AL050335, AC008101, AC019227, AL078583, AL133387, AL354993, AC006013, AJ277546, AC008664, AF130343, AC015971, AC018897, Z83838, AC005921, AL121914, AL035079, AC002563, AC005280, AL031681, and AI685488. AV700281, BF111882, BE858353, BF509559, AU144292, AI797616, AI911080, AI417220, AW592473, BF509133, BE677749, AW023813, BB465084, AI207263, AA393266, AA398669, BE173478, BG115116, BF792961, BF970768, AL043345, AI909697, BG179993, AI812015, BF343286, AW161156, BF133371, AV702833, AA641818, AW130930, BG105895, AI923989, AW161579, BE789764, AW827206, AI500061, AI572021, BE927769, AW051088, BG113188, BF814527, AL048656, AI859991, AV654374, AL047275, AI525653, AI567582, BF856052, AV757737, AL514093, AI783997, BG058150, BF527014, AV714085, AW132056, BG164575, AI863382, AI783504, AW020095, BF970652, AI434741, AI284131, AW118518, AI702073, BF895953, BE011880, AA814407, BE877467, BF905454, AI249497, AL040694, AV709522, AW162194, AL135517, AI536685, AV650703, AW983783, AI570807, AW071417, AW151136, AL514097, BF814357, AI564719, BE538997, AI620089, AA449768, AI288305, BE886844, AW983829, AI886753, AI933589, AW026882, AI635067, AI923370, AI868931, AW149925, BF924869, AL513937, BF812960, AI537261, AI539771, AI432030, BF812938, BF752245, AI612852, AI590630, AI886123, AI499285, AI634251, AW148408, AI862144, AI433157, BG029829, BE545500, AI886123, AI499285, BE927743, AI472536, AW168485, BE880498, AW827103, BF812961, AI866090, AI620284, AI039086, BG029086, AI250369, AI445992, AI445990, BG261282, BG259763, BG260287, AI891084, AI866770, BF814420, AI633125, AL046618, AV682575, AW983832, BF812936, AI698391, AI627988, BG036846, BG256090, AI677796, AL079963, AI915291, AW152182, AI640729, AW022699, AW089275, AI582932, BF726207, AI889189, AI521560, AL514473, AI683128, AI890907, BF856017, AI473536, AW008166, AV741327, BF816037, AI824576, BG257535, AV682479, AW162118, AI862139, AI270183, BG033732, BG110517, BG109857, AL119863, BG164558, BF338002, AI815855, AW238688, AI670009, AI537244, BF814450, BG036614, AW834302, W74529, AI525669, AV759831, BE963838, BE536058, BE964614, BE785868, AL036403, AV682787, AW020693, BE620444, AW673679, AI523806, AI623941, AV734318, AI537677, AI971615, AW051059, AV758477, BE546870, AI860003, AI868204, AV735353, AL048323, AV760409, AI919534, AI648684, AI150993, BF245586, AL513991, BG113299, AL048340, AI863321, AI368943, AI624293, AI284517, AW302988, AI889376, AL047422, AL037030, AI345745, AL036631, AI286256, AI513775, AI269862, AI873644, AI440448, AL513817, F27788, AW192652, AI863191, AI802542, AL514919, AW827249, AI432040, BE047852, AI242248, AW083778, |

| HPCTS21 | 360 | 100631 7 | 1 - 2644 | 15 - 2658 | AI696398, AA908294, AV652443, BF525883, BG029667, AI890214, AL036980, AI559619, AW128841, AI699865, AL110306, AB037774, AK000927, AL137529, AK024538, Z97214, AL049283, I89947, I48978, AL389939, AB052191, AF118094, A08910, A08909, AK026927, AK024588, A08916, AK025708, AX020124, AK020124, AK025092, AJ005690, AR038854, AF119894, AK026480, AL137271, AK026506, AB046642, I09499, A08913, AL137478, AF177401, AF116631, A77033, AF087943, AF026124, AF130110, E02221, AF119857, AL389935, AL050024, AK026353, I48979, AK000083, AF125948, AL122093, AL137521, AL133560, AL162083, AF118090, AL133081, AK026959, AF130077, AL137533, AF113690, AF126247, AB050410, AL023657, E06743, AL050172, AK026744, A08908, AB048975, S78214, AL050149, AB052200, AF130082, AL133568, AK025465, A08912, AL389982, I89931, AL049314, AL359596, AK025209, AK027200, AF116646, AL050116, AL096744, AK000323, AF116682, AF079765, AF026816, AF057300, AF057299, AL137476, Y16645, AR087170, AJ000937, AL049430, AL133016, AL080148, AF162270, AF119878, AF119865, AK000137, AB048954, AF130105, AL117460, AK026462, L19437, AF116610, AB041801, AF113699, AL137459, AF183393, AF090903, AL050108, AL353956, AK027116, AF139986, AL137480, AF061573, AL122110, X82434, I33392, AK026642, AK026542, AL353940, U88966, AF314091, A18788, AK027114, AF119875, Y11254, AB047887, AF116609, AK025084, AK026741, AK026784, AK026630, AF242189, AL117457, AL050155, AL133010, U42766, AL110222, AK000614, AR013797, AK026086, AB048953, Y11587, AL133640, AK026626, AL117416, AB048974, AF111849, AL359618, E07108, Y09972, AK025254, AF090896, AL133565, AL162002, AK026855, AF113019, AF100931, I03321, AL110196, AL359583, AX045627, AF079763, AX040974, AL137538, Y14314, AL080074, AK024594, AK026593, AJ006417, AL050277, AF078844, AK027096, AK000418, AF119899, AF067728, AX042059, AL390154, AF132676, AL137550, AB047941, AF061836, AF111851, U58996, AB047904, AK026762, AK027213, AK026592, AF260566, AF090901, Y07905, AL133031, AL133606, AL137292, AK026534, AL137429, AL359622, AF130055, AK025967, AK025414, AK027204, AK025435, AL359601, AF185576, AF106657, U35846, AJ012755, AX026824, AK026823, A58524, A58523, AL049466, A18777, A65341, AL133080, AF153205, AK025312, AJ003118, AL442082, AX027129, AL050138, AF230496, AF130104, AF113694, AF116688, AF130066, AF113677, AB048964, D16301, Z82022, AL442083, AK025632, AL133075, AK025484, AL157482, A03736, X96540, AL110280, D83032, AL117648, AF118064, AL080159, AJ299431, L30117, A93350, AL110221, AF090900, AX010492, AL117440, and AF106862. BE738670, AW969031, BG033369, AV723811, BF185746, AA496142, BG167304, BF526442, AW071692, BF691470, BE219222, AI569569, AW411538, AA768873, AA496143, AA975521, AI286012, BE737698, AI476316, AW473390, AV719519, AW593323, AA714205, AW341557, AA451627, AI697737, BF515831, BF207441, AA504417, AI685337, AW301603, BF693927, |

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HFATL31	361	1006399	15 - 1000	1 - 986	AI808778, BG054989, BE857601, BE885329, BE881349, AW304934, AW962192, BE712961, AI880009, AI815709, AW163154, AA526969, AI150509, AW161293, AI146808, BE712850, AI088675, AA722187, AI990261, AW451154, BE712843, AW449490, AW161970, AA115532, AI983943, AI492618, BE712919, BF589503, BE712889, BE713004, AW162759, AA719439, M79223, AI804223, BF939296, AW972384, H97676, AA552629, R76719, H41614, D80207, T31248, AI796667, R75663, H13188, H13189, H18312, BF886117, BF762457, W23735, AA115533, AI203992, H97439, D56295, AI832722, W35334, AI432110, AA084432, AW157796, H18170, H40836, AI916646, BF977122, AW083168, AA602325, BF338333, BF131373, AI434123, AW880236, BF726099, AI654105, BF726100, BG029058, BF339019, AI086254, AL118520, AR075096, U05784, AF119856, AL050015, X00861, AF113676, X87224, AL359382, U72882, AJ131955, AR059958, AL389951, AL133014, Z97180, AF218005, AF159141, I00734, AB016496, AF217972, AR095619, AL355713, AR095635, AB007812, AF188698, E00617, E00717, E00778, and AF144093.
HE2IE77	362	1006445	15 - 575	1 - 561	AV763983, AV726509, AV724045, AA484895, AV717042, AA491575, BF665912, AV752886, AV704858, BG171129, BE295759, AV759175, BF212041, AI133335, AW954146, AV718303, BF697058, BF575185, AV716398, BF695081, W40182, W19621, H74259, BF574703, AW959573, AV763693, AV714436, BF747404, AV761405, BG171057, AV760476, AA298804, BF666224, AI929471, AA296780, BE781598, AI815460, AI541337, N29084, N36756, H87040, AW959568, AV738107, BG121116, AA297887, BE513823, BF979410, BF697403, D56475, BE706808, N98570, W31214, AV712776, BE693502, BE513154, BE065121, AA298012, AV716021, AV751542, BE065135, H83627, AV690262, AA298961, AV660329, AA297588, AW371999, BF994508, AA297029, BF214397, BF980359, BF239553, AA297868, AW748993, AA297949, AV712048, AA297436, AW362946, AF121166, BF805496, BE774733, W85999, BB828311, AA257047, BE774859, AV732932, AW576707, AI126303, N77409, AV694284, BF765220, AI086042, BF807758, W21542, BE693520, N79915, BF335710, BF807687, AI885697, BF807695, BF807764, AI816403, BF378424, AA724019, AV722344, AI740446, AI001781, AI880801, H75925, AA412714, AA091861, AA251819, AA489131, AW968954, BE222943, AR051263, AF078848, AF201948, and S54914.
HCBNX87	363	1006475	15 - 948	1 - 934	AA195189, AI872284, AW770858, AA195225, AI970956, BE219722, BE856129, BE348445,

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HNTDJ68	364	100648 3	1 - 3266	15 - 3280	BG255574, BF797869, BF688018, AA088346, AL046406, AA626207, AA148554, AW271825, AW771157, AA122367, AA121480, AI123736, AI074017, AA419583, AA250725, AA150178, AA308446, AI470940, AA903233, AA088345, AA055608, N22856, AA253428, N45057, AW770308, AA055472, H27374, BE676183, AI221091, AA993376, AA400257, and BG230996.
HTRAA05	365	100651 2	1 - 561	15 - 575	AI742386, AI524073, AI401286, BE561354, BE295468, BE267749, BE513336, AI459535, AI889934, AW962270, BE712449, BE712458, BE695348, BE712281, BF106390, BE560144, AI927392, BF727086, AI160850, BE792824, AW081202, AW029525, AI814545, AA701033, AV703327, AW104087, AI886582, AA575902, BE695412, BE712223, BE712220, BE695398, BE712549, BE695418, BE712279, BE712505, BE712319, BE712008, BE695425, BE712770, BE695432, BE712628, BE712414, BE712498, BE712213, BE712504, BE695389, BE695426, BE712510, BE712170, BE712624, BE712232, BE712047, BE712014, BE695407, BE712104, BE712166, BE695391, BE695427, BE711646, BE712506, BE712331, BE695413, BE695403, BE712285, BE711560, BE712102, BE712622, BE712773, BE712502, AA770666, BE695378, BE712050, BE695420, BE712334, BE695373, BE712544, BE712724, BE712548, BE712555, BE712553, BE712222, BE711652, BE712547, BE712787, BE712108, BE695422, BE712212, BE712103, BE695419, BE712211, BE712421, BE695416, BE695424, BE695401, BE695384, BE711604, BE695436, BE695415, BE711760, BE695364, BE712430, BE712326, BE695429, BE695417, BE695404, BE695431, BE695423, BE712668, BE712231, BE695360, BE712670, BE711986, BE695409, BE712391, BE712266, BE695375, BE695395, BE711558, AA976480, AA767170, BE712324, BE695428, BE695402, BE695344, BE712587, BE695345, BE695374, AW591351, BE695382, BE712507, AA576980, BE711587, BE712454, AA384751, BE712392, BF726553, BE712100, BE712507, AA687454, BE712322, BE712771, BE695414, BE695400, BE695434, BE712171, BE695362, AI367957, AA687513, BE711670, BE695381, BE695358, BE695368, BE711532, BF112286, BE712160, BE711502, BE711500, BE711535, BE695405, BE695346, BE695361, BE711842, AW079821, BE695377, BE712221, BE712045, BE712162, BE828330, BE695433, BE695421, AA352952, BE695355, BE695365, BE711508, BE695351, BE695383, BE695359, BE695379, BE712101, BE695350, BF837811, BE711614, BE711657, BE695352, BE695376, AW370204, AW510617, BE712003, BE711603, BE828321, BE695392, BE695410, AI460272, BE695393, BE856500, AI309112, AA907009, BE712456, AA411532, AI739011, T71962, AA507928, BE695430, BE828315, BE828313, D60602, BE828312, AA317838, BE712474, AV688621, T81771, BE327944, BE695356, AA662912, BE711542, BE940444,

HMTAL96	366	100663 5	1 - 1821	15 - 1835	AA522896, BE695380, AW071632, and T71693. AU121947, AU133408, BG107816, BF978353, BG167070, AU136479, AI912625, BE787533, AL043108, BF978689, BG118584, BF575979, AW946781, AA541465, BE896118, BF242492, BF673227, BF574674, AI769406, BF573737, AI677825, AA843784, N90942, BF679753, AL133947, BF340046, AI122639, BF338412, AI956122, W58349, BF674910, AW946784, AI146802, AA433844, AV721278, BF213289, AI829684, AI248810, AW148927, BE549681, AI634356, AI693209, AA313329, AV721952, AW015279, AV721448, AW970646, W48807, N33995, AA770568, BF570691, BE046360, AI200909, W52177, BF670447, AW337556, AI925678, AW137200, AW946872, AA740996, AW473986, AA044616, AI088578, BF986183, AI302975, W58474, BF572827, AA176436, BG149747, N36852, AI090980, AW440100, AI814300, BG031130, AW403227, AA846487, W52178, W60313, W60262, BF577093, R80598, N35139, AW080740, BF930195, N46123, BE891377, BG231991, R80597, AA178883, R23907, AI244465, AW027841, AV707552, N36871, AA262561, AA626808, AI127632, R24938, AA158096, AV705840, N46141, AA165152, AA165180, H94816, T28111, H89174, AI523244, BE539497, AW876080, AA885512, N32999, AA042803, AI291968, AW271335, AI374631, AI928012, AI582354, AA905984, AI391678, AA654121, AI470822, AI659820, AU150290, AI435866, AA478972, AI672499, AA782245, AI683540, AI242454, AI963948, AA098811, AW974863, AI970953, AA098979, W47019, N24550, AI656583, AA098926, AI811590, AI346328, AI702054, AI926667, AI565050, AI669676, AW300195, AA626702, AI078689, D20104, AI910690, AA991913, H80964, T70014, BE041620, AI432060, AA329386, F00987, AA677620, AA450363, BE328391, AA100143, R82731, AV749441, AI912968, AI681692, BE219987, N89579, BF575528, R23125, R23127, H83940, AW404323, BF446671, AA730321, BE253861, AA069494, AA808762, AA370257, Z28753, T29433, BF732515, AI365551, AW502459, AA243213, T39145, BF530380, AW795398, AA973669, W46200, BE183279, AA836447, W23989, BF105047, T39150, W17101, BE041692, BE827333, N91885, AA453560, D45259, T10404, N47782, AA091310, AV749903, R23998, T27528, AA165310, AA248615, R23906, AI420657, BF240034, AA809895, R31791, BE006042, AA089814, AV718352, BF447937, BF003074, AA863104, AI095737, BE220393, BG236248, AI420216, AI597664, AI972622, AA523550, BG036924, AI674511, BE673195, BF446200, BE550809, AA913502, AI218901, AI827982, BE674363, AX017503, AC018682, A93912, AL139099, AB031482, M31470, A93910, D49727, AF196993, AF197014, D50264, D49726, D49725, R62747, AA853568, AA916254, and AA969277.
HDTJP21	367	100685 8	1 - 693	15 - 707	AI911957, AW804755, AI862391, BE067582, AI301580, BE067581, BG033220, AW817932, AI591299, R62701, AI590522, AA502683, AL040054, AA634017, BF991208, AW273830, BE261047, AI348810, AW021774, AI590459, BF767878, AW302983, AA579469, AI870204, BE243098, AI345123, BF854038, BF810071, AV710482, AI597820, AW303254, BF832078, AL133668, AA077776, BF925233, H05073, AI345550, AA634889, BF149427, AA654781,

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HODFH02	369	1006953	1 - 603	15 - 617	AW966385, AV700495, AW973541, AV718487, AV720211, AV720729, AV720104, AV719632, AV719822, AV701335, AV701332, AV701248, AV701431, AV701043, AV701017, AV701357, AW966342, AV699866, AW975623, AW973470, AV720616, T06155, AV718427, AV699746, D88547, and AC003010.
HOCPP18	370	1007230	1 - 759	15 - 773	AI743840, BE877930, BF028625, AW968831, BG171528, BF244687, BF034731, BE738082, BF696564, BG249379, BE262610, AW610031, BF675618, AI168679, BF184298, AW582660, AW610024, AW610015, BF432167, AW582658, AW582645, AI368790, AW582649, AW404414, AA635047, AA977202, AA255745, AW609460, W74224, AI189196, W19875, AA423814, AW873607, AW674957, AA700205, N34074, AW673317, AI693774, BF207680, AA490434, AA811988, AA687682, H59322, AW675671, N25686, AA043487, BE738236, AA384027, AA970715, W03959, AA099633, N91486, AA844086, AW970706, H64607, AW361070, AA576387, AA527550, AI380149, BG180768, BF742317, AI149307, AI139270, BF334168, AA643654, BF965959, AI018593, AA513014, AA101966, BG180833, AI089738, AA419058, AI041791, AW139976, N73897, W74225, AW361045, H70242, AW024571, AA126714, AW271818, AI143332, H82629, AW958804, R26807, BE047049, AA987943, T85639, AI857573, AV687372, N22461, AW268579, AA090516, AW651630, AI244767, AA877283, BE041685, AA426291, BE765584, AA136056, AI819235, N56136, AI241275, T79549, N56398, R26004, AA889245, BG153704, AA641594, AA873098, AA757925, AW879744, AA043488, AK000666, AF150100, AL163279, AF152353, and AF150102.
HODFP91	371	1007941	1 - 1747	15 - 1761	BG253213, BF681335, BF372572, BF679493, AA420666, BF678593, BF327033, AI804263, AV704486, AI275402, N33388, W78024, AI083839, AI337610, T92186, T89120, N23972, BF371272, AA658363, BF370329, AI798226, AA253483, AI216498, AA234181, AI216502, R59949, AA253313, BG105540, N31873, AA225664, T89209, AW593695, AA662620, AA528445, AA513944, BF326921, AL042210, AA179786, AI669285, AW964036, AA352063, AI080345, R59948, AI344783, AA180503, BF891183, AW515141, AW997169, AA225610, BE940088, N98709, AA206457, BG003461, AR070464, and AL359561.

| H6EDU06 | 372 | 100797 6 | 1 - 574 | 15 - 588 | AV706787, BE907476, BF026598, AW070517, AV721296, AA156834, AI553893, BE675928, AI288705, AI762669, AW273834, AW024561, AI312660, AI138250, BE672892, AA626719, AA594341, AW974501, AI219985, AW071929, AA828157, AI309908, AI057511, AI268592, AI286041, AI870386, BG222673, AW303596, AA156597, AA812762, AI039165, AI024129, AI089622, AA456739, AI924451, AA989383, AA482452, AI803068, AA417820, AA994692, AI051535, AI801913, AI672921, AI800826, AA49448, AA455184, AI025564, AA954675, AI807763, AW952786, AA862743, AA887974, T98015, AI240669, AA977347, AA972180, AI368505, W24116, AA933043, AI784667, AA934066, AW183454, AI868633, AA907741, AW663428, T86139, AW205935, T89455, AI245098, AA513366, AA515593, AA338859, AA813534, AA115080, BE672891, AI381801, F17301, C03097, AI659028, AA216001, Z42400, N91938, AI913851, AA992249, Z19268, AA365163, AI420340, AI656368, AA648946, AI583724, AA992479, C03931, AA770117, BE185666, AA479458, AV702417, AW964409, AV729376, AW960655, AW954134, AV652001, AV651955, AW963027, AW951270, AV725153, AV706417, AW964585, AW953807, AV702789, AW949478, AW962386, AV709273, AV703790, AW964440, AV709092, AW950443, AW960601, AW952403, AW952183, AW959806, AV656903, AV661704, AV697196, AW952751, AW956075, AV645936, AV709587, AW955723, AV658084, AV692600, AV650315, AV659389, AV697880, AV727613, AW955900, AV656373, AV726010, AV655280, AV660258, AV647789, AV708109, AW959521, AW956474, AV659294, AV727787, AV703146, AV686060, AV725745, AW951239, AV686064, AV660608, AV728148, AV659322, AV726156, AV654908, AV726590, AV656478, AV698545, AV709314, AV653353, AV708381, AV654070, AV660728, AV691080, AW951281, AV702385, AW949802, AV658275, AW955662, AV703669, AV707979, AV658751, AV727003, AV709580, AV725208, AV725582, AV708786, AW957517, AV659547, AW959543, AV727526, AV707155, AV703169, AV651920, AV725618, AW954439, AV727510, AV725633, AV707088, AV652156, AV728518, AV702266, AV725577, AV725033, AV706223, AV728924, AV725617, AW954206, AV727935, AV707863, AV725991, AV707304, AV696931, AW964421, AV726619, AV952410, AV703062, AV727822, AV699089, AV705135, AV701874, AW950888, AW962444, AV703501, AV702772, AW954237, AV701180, AW950258, AV707401, AV701183, AV709660, AV704585, AV709935, AV654035, AV707652, AV707654, AV728721, AV707663, AV683994, AV704042, AV654282, AV729220, AV709880, AV697288, AV698290, AV687035, AV706882, AV704847, AV694836, AV697498, AV702954, AV686420, AV694812, AV727238, AV682997, AV696866, AV727126, AV707656, AK026514, AF151894, AC004789, AX047063, AR050070, A62298, AF217994, Y08991, AX009337, A82593, Z30183, AX047064, U94592, S68736, AX009343, AX009341, AX009337, AX009335, AX009345, AX009342, AX009344, AX009340, AX009339, AX009336, |

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HSIEH63	374	1008027	1 - 757	15 - 771	BF591295, AI223817, BF064033, AI432306, AI732756, AI732256, AI827789, AW270969, AI458391, BE826171, AI820678, BF062424, AI734150, AA487683, BE645984, BF002863, AI073913, AA487468, AI521059, AI906906, AI906910, AI905072, T94990, T94936, AW015443, BE075729, BF512129, AA708803, AI810047, AC004993, and AF106066.
HPASD51	375	1008071	1 - 819	15 - 833	AW753589, AW959236, BE742519, W32940, W15186, N73147, T82084, AA294934, AA211695, AI905700, BF032776, AA354566, AW837086, AA468796, and AC007655.
HCOQH27	376	1008154	1 - 2570	15 - 2584	AL536332, ALS15984, AU515142, AA639765, AI281923, AU125056, AW953648, BE734342, BG167105, BE794775, BE729038, BG260021, AI372989, BE729258, AI720031, BE677682, AW088074, AW300735, BE789911, BF206718, BE408591, AI768419, AI768875, BG027265, AU135162, AA482024, AI745443, AA514479, BE046393, AA627864, AI928477, AA528026, BE391197, BE395201, AA846720, BE391155, BG166973, AW104771, BE741552, AW673993, AI017373, ALS15985, AA527494, AI215852, AI871626, AW205622, AA045396, BE390376, BF111620, AW612025, AW291747, AW295357, AW087156, AA722864, AI694451, BE076330, AA574156, W07767, BG001290, AI613494, BE515246, AI630897, AW959218, AA866004, BE671294, BE778573, N21002, BE503277, AA436970, AA577399, BF087009, AA485992, AI609811, BE567267, AW594105, BE745288, AW614636, AA987612, AI373242, AA595033, AW602847, AA908276, AA442981, AI261446, AW271584, BE277529, BF224222, AI858742, AW577571, AW297117, AI914132, AI086874, AA946951, AI864703, BE675612, AI365469, AI089624, AA417570, AI205853, W76670, AW779982, AI797948, AW975076, AI801899, AI654944, ALI34914, BE275008, AA045080, AA315298, HI7040, BE731460, BF868517, AA281453, W80506, BE729487, C06206, AA458469, W72604, H85386, AI261797, BE348343, C05666, AV742478, AW951164, AI500450, BE774706, BE791627, BE796924,

					BF063082, AW873406, BF512937, AA985558, R24965, AA359349, AA181239, F07027, AI369560, BG167811, AI499976, T23579, BE274925, N80706, AI125182, R22308, AI867225, BF125894, BE733074, AI864702, AA351832, AA488619, R22307, AA211234, T15846, W78706, T29175, R59834, AA768369, BE730023, AI280541, H17039, AW451574, BE794619, R59725, AA337433, AI914281, BF685266, BE894029, R45226, N62790, AA209250, AA885364, BE870829, AW239502, R13676, AI193308, BE903685, BF508932, F05190, BE279232, F01005, R37773, Z40129, AA658001, BE048334, BE799216, AW470658, N66912, N78467, BE734815, BF205742, AW087771, AA639210, BG118949, F01440, BE866954, AW771236, AW771230, BF921987, BE294736, AA156669, AA417688, AW747945, BE739601, BE739356, AI968627, BF923421, N92948, BE763516, AA419422, AA918503, AA192355, AA156775, N85859, AI827610, AL119049, AI003244, BF185020, AA470136, N83767, AA928812, AA280765, L07758, AC007622, Z36805, Z36804, and AB049913.
HNTBU30	377	1008177	1 - 4084	15 - 4098	AU125982, AW953485, AU125447, AU124785, AW001101, BG110603, BF974285, AL040867, AL040866, BF725360, BE868091, BG104583, AW090092, BG121189, AW190132, AI355864, AW889900, BE378250, AL041116, BE548940, BE256037, BF941323, BF034153, BE547709, AU132530, BG106299, AI651097, AI359516, AW080364, AW383973, AL524978, AW362784, AW753817, AI148869, AI393562, AW675581, AA456283, AU149111, AU132763, AU154232, AU149535, AL046765, AU154467, AA400563, AA706610, AW004969, AW836789, AW836786, AA454671, AW373589, AU154038, AI797535, AI367629, AA400150, AA313215, AI018014, AI288449, D53070, AU148577, AA535371, AW836788, BE813630, AW363230, AW605323, AA400176, AI094511, AL040652, BE855545, AA453842, AA649925, BF887870, AI040392, BF357897, T09488, BE873172, AW937579, AI421670, AI423472, BF753305, AI371901, R18421, D53589, AA400392, AA586607, AA683594, AW628747, BF848580, AI371901, D53194, AW999617, D52887, AA514956, D53211, AI453237, BF590559, AA227274, D53194, AW999617, D52887, AA514956, D53211, AA233313, AI905503, AA227283, BE070741, AI683301, T23587, T77686, H91031, BF081251, AI916759, AA322214, BE070726, AA453758, C00385, BE694440, BE938121, D53071, D53128, Z25342, BF081249, AI911435, D53754, AI378143, H90918, AI911691, AI272899, H88808, AW754123, AA916908, AI200242, BE070582, AI270551, H89032, AI424142, BF332451, AW580296, AI955188, AW295174, T09487, AW072241, R42483, R38392, BF842266, AA249047, D53193, AW602313, AW857035, D53127, D53210, AW611973, D53388, BF357733, AI910768, BE858745, BF194823, AI905504, AA005312, BF378122, BF820885, AI307564, AI818299, BE814287, BE814349, BF334589, BE814606, BF378140, AW512399, AW364841, BE825640, AW512554, AB002366, AK024705, AK025689, AK027063, and AF052139.
HCOPZ14	378	1008179	1 - 1070	15 - 1084	AW934723, H37994, AI498824, H92316, AA426342, AA702719, AI128833, AA994942, BF593832, AA932972, AA808375, AA946572, AA369769, AA594909, AA806051, H20466,

					Accession Numbers
					AA455129, AI038522, AA399424, BF732814, AI750639, AI719681, N70839, AA765044, AV707407, AI202858, AA085234, AA767390, AA286924, AA609354, N78974, AA485738, AA887225, AA937034, AI291963, AI358650, AA284500, AA470747, AA102025, AI200177, AA769215, AA069853, AI291962, AI355182, AA482551, AA150302, AA490902, N20002, W81002, AI348340, BF979406, AI991199, AW296379, AA953934, N66142, AI191463, AI091265, AI371135, AI497938, AA524858, AI190177, AI091395, AI369827, AI141079, AI499037, AI356047, AI245438, AA700953, AI215137, BF058683, AA534625, AA888067, BE384414, BE280080, AA977561, BE395088, AW182892, AI818273, AW170631, BE254785, BE644851, BF685938, BE251950, BE261985, BE388733, AA632013, BE256819, AI422715, BE677814, AA746219, BE251392, BE302736, BE385718, BE740269, AW269677, AA541648, BE390173, BE408650, W73756, BE393101, BE251423, BE383310, BE382411, BE389013, AI273757, BE797131, AV708799, AI971642, BF206855, BE382779, BE252023, BE396544, AI184848, BE795216, BE780558, BE796620, BG031384, BE884878, BF976255, BE868760, BE313098, BF314656, BF683258, BF976598, BE378757, AW614698, AI554292, BE740546, BF976646, BF972949, BF686137, AA781589, AI368186, AI564228, AI095638, AI332799, AI798016, AI199216, AW149437, AW001581, N20116, W61335, H20252, BE266824, BE646365, BE562800, AW007486, W72497, H17288, BE615633, BE304606, AW246242, BE388748, AA761304, AA737008, AI194041, BE261059, BF338282, AI312662, AI803513, AW976118, BE796733, BE902371, AW963960, AV726513, AI024140, BE293668, T35722, BE313868, BF026881, BE260064, BE395798, BF182820, BF237887, BE777884, BE897802, BG027417, BE614922, BF207295, BF310788, BF684394, BE795449, BE280417, BE781789, BF683849, BE272073, AA490865, AA627990, H20471, AW173790, BE249955, BF316969, AA854240, W94233, AW800916, BE253470, AA191107, BE251089, N32846, H99084, BF819511, TS2641, AA989636, AI371466, BE833266, BE255312, BF663674, AI074104, BE255154, AA287161, BE832928, AA128033, H56620, N27167, AA927061, BE877626, W58692, BE926335, BE544664, R54752, AI183902, AA302461, AI146843, BF760392, AA464316, U66895, L76200, and A11042.
HODEC78	379	1008299	1 - 1457	15 - 1471	AA287686, AA207154, AU154168, AAI79206, BF959881, AI640238, AU132680, BF194738, BF940404, AW135518, BE742576, AII92959, AI694946, AI523667, AW204593, AW002521, AI356297, AI361894, AI914362, AI300563, AI952850, AI361750, AI768922, AI582698, AI356535, BE772693, BF061364, BE552169, AW013899, H83373, AA018189, BE276307, AW960051, AA749310, BF433855, AA366409, AA769579, H87151, H87035, AI868789, AA464267, AA249429, AI816088, AA471320, BE256470, AW367751, AW391782, BF931655, AI580257, AA101455, BF961680, BE745650, AA973114, U90028, and U90029.
HODEF29	380	1008304	1 - 413	15 - 427	AW949656, AW949631, AW949643, AW949618, AW949642, AW949655, D80022, D80212, C14389, AW975618, D80166, D81030, D59619, D80210, D80240, AV720211, AW975605, AW966013, AW960454, C14331, D80219, D51423, AV718844, AW966531, AV723927,

D80195, AV699550, AW966075, AW966053, AV718707, AV719822,
AV720878, AV718692, AW978634, AV719324, AW949653, AW973488, AA305409,
AW959799, D59859, AW975621, AW973334, AW966029, AV718938, AV718633,
AW973474, AW975613, D59502, AW978661, D51799, AW960465, D80253, D80045,
AV718489, AW973307, AW966534, AV718931, AV719557, AV720731, AW959202,
AV699447, AW958993, AV722801, AW959136, D58283, AW966022, C15076, AW956397,
AW962245, AW973482, D80188, AW966041, AW965163, D80391, D80164, AW973541,
AW966054, AW978648, AW966050, D59787, AV719783, D59467, AV719468, AV718800,
AW965185, AW965197, D59275, AW965196, AW719188, D80043, D80193, D80227, C14429,
AW973330, AV720203, AW964756, AV719188, D80043, AW959597, AW959628, D57483, AW960473,
AW966062, AV718440, AV724520, AV720028, AW959597, AW965175, AW960564, AW958992,
AW965177, AW959570, AW949654, AW973485, AW965175, AW960564, AW962082, AV699927,
AW959062, AW964477, AW956434, AW964488, AW949488, AW949641, AW962082, AV699927,
D80366, D59927, D80196, AW966059, D59889, AW973447, AV699746, D80024, AV700889,
AW964737, AW959582, D59610, AW949629, AW949646, AW949657, AW966043, D80269,
D80038, D50979, D50995, AW949646, AW949658, D51060, AV721386, AW965158,
AW949633, AW723097, AV701004, D80378, D80241, AW966023, AW753053, AV720812,
C14014, AV723097, AW949630, AW959469, AW966030, AW960504, AW960532,
AW975623, T03269, AW966032, AW752082, AV718530, C75259, AW960570, AV719049,
D51022, AW178893, AV700229, AV720533, AV699682, AW179328, AV699669, AV720654,
AW965176, AW177440, AV744690, AW960474, AV742001, AV742667, AV701125,
AV701335, AV701166, AV742430, AV701149, AA305578, AV701043, AV701332,
AV701017, AV701248, D80134, AV742048, AV701431, AV699866, AW964468, D80248,
AV720150, AW973490, AW966386, AV645389, AV645344, AW964532, AW966397, D81026,
D80949, AV701130, AW973465, AV701419, AW378532, AW964766, AV701154, AV701422,
AV962395, AV719628, AV681510, D80251, AV681491, AV699652, AW178775, AA514186,
AV720616, AW966049, D51250, AW951169, AW949620, D80133, AW369651, AV700159,
AV701443, D80064, D80268, AV720755, AV699479, AA514188, AW966560, AW966368,
C14298, AW753041, AV645343, F13647, AV742022, AW178762, AV701357, AR018138,
A62298, AX033851, AR070327, A84916, A62300, AX027925, AJ132110, AX047063,
AX047064, A67220, AX021518, D26022, X67155, AX035434, A25909, Y17188, AR008278,
D89785, AX020191, A78862, D34614, AJ302649, AX020190, AF058696, AB028859,
AR077702, AX047062, D88547, AX028130, AR092424, AR087649, X82626, AJ294956,
Y127724, AR025207, A82595, A94995, AF260572, AR060385, AB002449, AR008443,
AR074545, AB012117, AX015396, X68127, I50126, I50128, I50133, AJ287395,
AR074064, AR074141, AR060138, AR066482, A44171, AR088705, AX042372, AR066488,
A85396, AR074141, AR060138, AR066482, A44171, AR088705, AX042372, AR066488,
AR016514, A85477, I19525, A86792, A45456, A26615, AR052274, AR074139, A43192,

HODFB71	381	100830 7	1 - 2721	15 - 2735	A43190, AR038669, I14842, X93549, I18367, AR066490, Y09669, AR066487, AR074136, A30438, AR054175, AR008277, AR008281, D50010, Y17187, D88507, A63261, AR008408, AR062872, AR091537, A70867, AR093385, AR016691, AR016690, U46128, A64136, A68321, AF135125, D13509, AR060133, I79511, AX035429, AX035428, AX035426, AX014811, U87247, X72378, AR032065, U79457, AF123263, AB033111, AJ000347, X93535, and AR008382.

Second block (column 15 - 2735 sequence listing):

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1964

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HODEF78	382	1008314	1 - 538	15 - 552	AW872474, AV723927, AV720211, AW966013, AW966053, D81030, AW975618, AW959597, C15076, AW975621, AW949642, C14389, D80212, D80164, AV719468, D80022, AW978648, AW949656, AV718692, D59502, D59927, AW978634, AW966050, D80195, AW960465, D80045, AW949631, AW949643, AW949618, AW966054, D59467, AV719783, AW966534, AW966065, AV720464, AV718800, D80253, AV718707, D80166, AW966531, AV724520, D80391, AW949654, D80193, AV718844, AW966041, D59619, AW959570, D80210, D80240, AW965185, AW966029, D59787, D80196, D80227, AW966062, D58283, AV720791, AV719188, AW966029, D59787, D80196, AW958992, D80366, AW973334, D59859, AW949641, AV699927, D80038, AW959799, AW965175, D51423, AV719324, AW964477, AV719822, D80219, AW960553, AW965175, D51423, AV719324, AW959062, AW964477, AW978661, D51799, AW949646, AV718489, AV720203, AV718770, AW973307, AW959202, AV718440, AV720028, AV718633, AW959628, AW965177, AW975605, AW949658, AW973485, AW965184, D80269, AW973541, AV718931, AV719557, AV720731, AW959582, AV699447, C14331, AV722801, AW973474, AV699550, AW964488, AW965163, AW973488, D50979, AW964756, D80188, AV718938, D80024, AW949655, AW960454, AW973482, AW958993, AW959136, AW956434, AW962082, AW949653, D57483, AW965158, AW966043, AW962245, AW965196, AV718530, D50995, AW949630, AW975613, AV723097, AW964737, D59889, AW960473, AA305409, AV720878, AW960564, D80378, D59610, AV720812, AW949629, AW949645, AW949633, AW949632, AW753053, AW949657, AW973330, AW973447, AW956397, AV721386, AW966059, AV700229, AW960532, C14429, AW966023, AV699746, AW959469, AV720150, D80241, AW960570,

HODEL83	383	100832 4	1 - 520	15 - 534	AV700889, AW960504, AV699669, AW752082, AV701004, AW966032, AV720654, AW966030, AV699682, T03269, AW975623, AW178893, C75259, C14014, AV719049, AV742001, AV742667, D51022, AV701125, AV701335, AV701166, AV742430, AV701043, AV701332, AV701017, AV701248, AV742048, AW179328, AV701431, AW965176, AV744690, AA305578, AV701149, D81026, AW177440, AV719913, AW378532, AV681510, AV681491, AV720533, D80268, AW966049, AV720755, AW960474, AW973465, AW964532, AV701130, AV701419, AV701357, D59695, AV701154, AV701422, D80134, AV719628, AV645389, AV645344, D80251, AW964766, AV700159, AW377671, AW178775, AV701443, D52291, AW951169, AW966560, AV699479, AW369651, AV645343, AW960414, AW964468, AV719727, AW962395, AV720607, D80522, D51250, F13647, AV742022, D80168, AV699866, AV700622, AW352158, AA514188, AV719000, AV681529, AV681468, D80949, AC003982, AR070327, A84916, AX027925, AJ132110, A62300, A62298, AX033851, AX047063, AX047064, AR018138, AX021518, X67155, Y17188, D26022, AX035434, A25909, A67220, AF058696, AX020191, D89785, A78862, D34614, AJ302649, AX020190, AB028859, AX047062, AR008278, AR077702, D88547, AR092424, AX028130, AR087649, X82626, AR025207, Y12724, AJ294956, AF260572, A82595, AB012117, AR060385, AB002449, AR074545, AX015396, A94995, X68127, AR016808, AR008443, AJ287395, A85396, AR074141, AR066482, A44171, AR088705, AX042372, A85477, I19525, A86792, I50126, I50132, I50128, I50133, X93549, AR066488, AR016514, AR060138, A45456, A26615, AR052274, I14842, AR074139, AR066490, Y09669, A43192, A43190, AR038669, AR066487, AR074136, A30438, I18367, D88507, AR054175, D50010, Y17187, A63261, AF135125, AR008277, AR008281, AR008408, AR091537, AR062872, A70867, AR093385, AX035429, AX035428, AX035426, AR016691, AR016690, U46128, D13509, I79511, A64136, A68321, AR060133, AB003111, U87247, AR087528, AR064240, AB037923, AX014811, U79457, AF123263, AR032065, X72378, X93535, and AR008382. AL138813, and AC004915.
HHPSH76	384	100832 5	1 - 1578	15 - 1592	AI971626, BF940710, AI870763, BF447174, BE676274, AI582352, AI431882, AI161166, AI971645, AV693733, BF000296, BF594148, AI222731, AA937784, AI299178, AI394300, AI439546, AI362722, AI345977, AW072003, AW028669, AA632194, AW205947, BF057452, AW206327, AA972757, AA587064, BE712791, N90856, AI350107, AI298077, BF058455, AW134661, AA825270, N90867, AW028686, AW007772, W16555, AI161086, AI149235, BF736655, AA746018, BF732395, W16558, AW007772, AI762633, AW904256, BE715859, AI368507, AI025216, AW137922, AA808302, AA808603, BE715826, BE670470, H86812, AA639423, H86876, AI700294, AA887551, BF063604, T55756, BE671028, AA853813, BF115406, AW300426, AA858288, AA878930, BF590909, AA853812, AA639424, BF967749, AC006230,

HBGBE52	385	1008326	1 - 769	15 - 783	AF019386, AF019385, AF177430, and AJ388534. BE002704, BE065136, AW152446, AV734696, T62861, AA584449, AW370854, AW295305, AI539492, AI093863, T62711, AA663693, AA808792, AW371354, BE138955, AI343194, AI251970, M18740, M25718, and U13369.
HBQAB30	386	1008327	1 - 779	15 - 793	AU121386, BG024628, AL523997, BF794753, AU137819, BG177391, BG176653, BG259088, BG106999, BG107310, BE265326, BF305474, BF347603, BF796967, BE018909, BE018889, BF797739, BE167696, BF981741, AL039474, BF350360, BE244700, AF869380, AA651690, BF183251, BE778225, BE740869, BE271603, AW474216, D58450, AU124160, AW361236, AW466946, BG107057, BF772633, W27829, AU076945, W26115, BF759430, AW664187, AA570434, BF675704, L12579, M74099, U68542, L43505, AB041595, AC005103, AF047825, AC005086, AF004225, X75013, AC006457, AC002978, and U25750.
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HPFDV51	388	1008335	1 - 917	15 - 931	BF508974, AW965115, AI630839, AI741643, AW072035, AW268897, AV723999, D62666, AW072761, AI016072, BF512461, AA344181, C16744, D62943, BF437674, AA344606, AA905880, D62570, AW965114, W60522, F05944, AI915081, AA307598, AV754716, AL042630, AA689351, BF448904, AA429481, AW392414, AI124706, BF883138, AA603400, AW732205, BF769787, AA610381, AL137946, AI471455, AA550959, AW502873, F36200, BF766147, AA132912, AV728369, AI687343, BF742657, H86221, N91711, AI624379, AI282629, AA642809, AV764406, AA828153, AA946848, AA084230, AA578832, T93109, AA228778, AA524800, AI356440, BE868437, AW949694, BG026818, BG026893, C14480, AA508036, AI754037, AA525293, AI568659, AA610826, AI185394, AV743799, AA362349, AI918419, AV734149, AA678950, AA135761, W39287, AU150583, AA654778, T05354, AA385775, AA484892, AA935291, AA466923, BF737749, AA828442, BF853968, AI537800, AI049701, T06828, AW515219, AA666215, AV729669, BE676915, AA483731, AW511778, AA525331, AV764259, AA728861, F26072, AA445951, AW850230, BF913900, AA483034, AW151247, BE143664, AA533054, AW979295, AA371410, N71619, AA483483, AA832016, AA831801, AV762430, AI246996, AA364082, AA598663, AW468349, AA805960,

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HTEDY04	389	1008336	1 - 1291	15 - 1305	AC021752, AC005342, AC006561, AC011469, AC007639, AL022240, U78027, AC005741, Z81314, AC006146, AL391839, U48471, AC005081, AL136369, AC005911, and AC004968. AI927477, BE670723, AI948965, BE466314, AA987287, AI095479, AW957242, AI199425, AI128097, AA448092, AW972332, BF434529, AA447554, BE045361, AI369302, AI361389, AI923806, AA435678, AW972328, AI660309, AI080255, AA054012, N70603, AA837761, AA448073, AW339432, N55490, AA393640, AI863621, W04922, AA447593, N69823, BF361414, N76977, AA057377, AI216708, AA448537, AW243130, AA036760, BE084121, AI675513, AI350467, AW016860, AI265822, H22783, AA508054, R14614, AA383086, BF361412, H80683, T64743, AA379733, AI038561, AA370797, H41174, AA370796, H80646, AA746313, BE791070, BG012707, AI268695, AF006386, and AI034379.
HODEG13	390	1008337	1 - 516	15 - 530	AA861406, BE160342, AA654837, BF814002, AW877546, AA244041, AW157413, AU143973, BE061421, Z93403, Z92545, AC005326, AC004552, AL360078, AL021406, AL049781, AL136442, AP000515, AL133500, AC006313, AL355272, AL121776, AC005993, AL117340, AL109800, AK021450, AL109853, AC008873, AP001724, AC087085, Z93928, AC016623, AJ229041, AL133514, AC007068, Z73986, AC010198, AL353573, AL121950, AF036938, AL121997, AL008629, AC007068, Z73986, AC010198, AL353573, AL121950, AC009241, AC004949, AL008639, AC006461, AC005538, AL096867, AC006157, AL354685, AL136133, AL023883, AL033375, AL360157, AC009430, AC005018, AC003670, AC026398, AL160237, AL158141, AL137118, AC006257, AC008127, AC008279, AC008083, AC009308, AL135960, AJ131016, AC007282, AC004554, AL035423, AC004055, AC004911, AL391684, AL035454, AL121841, Z85987, AL158064, AC016607, AC004982, AC020603, AL391666, AL163280, AL391644, AC073572, AC011890, AL359641, AL353582, AL031054, AF002223, AC022274, AL033521, AL132773, AC004052, AC008818, and AC073325.
HHPFK16	391	1008345	1 - 461	15 - 475	AA306966, AV650072, AV650129, AV651901, AW248211, BE251055, BG257405, BG142261, BF796726, BE252748, BF970072, BE253394, AA587676, AV727695, BE566483, BF979560, N31759, AV689371, BF979663, BF530154, AA379229, AW963917, W32392, BF185241, BE618517, AL523961, BF681293, AV750140, BE748280, AI092258, BE783649, AA281646, BE164637, BE781790, AA523844, AA333474, AL524527, AI733910, H00017, R47258, BE972575, R47244, AA375463, AW304314, AW801668, AL524526, H00071, BF988262, BF683074, BF182646, AA664453, BE842637, BF185407, AI419252, BE388376, AI698340, BE857220, BE011477, AC007204, M61870, AC010329, M61866, AC011482, BE743952, BF694306, AC011636, AF070651, AC008739, U35376, AC024563, AC073539, AF038951, AC008554, AC010636, AF070651, AC078899, AB040906, AC006539, AC008463, AC011494, U37092, AC003973, M61873, AC078899, AB040906, AC006539, AC008463, AC011494, U37092, AF242519, and U37098.
HARAL81	392	1008349	1 - 809	15 - 823	AA777763, AI888037, AW954039, AI499427, AI569758, AA573906, AW305026, BF060656, AW778946, BE466396, AW511528, AW069026, AW953867, AW516094, AA526290,

HFTAU42	393	1 - 1705	15 - 1719	100835 0	BE350929, AI458494, AI348375, AW778861, AW515242, AII67773, AII67778, AI340014, AW591035, R27343, AI743913, AA417618, AI445272, AI017672, AA846130, AI031742, AI130967, AW083699, AW514640, BF435521, AA317786, AIS37097, AW166621, AW474028, AA148403, AI051164, AA532636, AW628654, TI6495, AI918078, T35136, T99542, C13971, AI203032, R27194, W32467, AA769735, AI923246, AA417617, H85078, AW627632, R05681, H85068, R27344, R27232, H98786, N28328, W56232, BF343776, AA548433, AW471025, AA369382, AA890684, BF439088, AW975621, R05680, W19830, BE866605, AW973541, AA725383, AV742022, AV699746, AV719822, AW966385, AV700495, AV738928, AV699652, AV701043, AV701431, AV701335, AV701332, AV701248, AV701357, AV701017, AC009314, AF228703, AL031005, AC004166, AC006057, AC004867, AC011811, and AL352979.
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HETDA81	394	1 - 363	15 - 377	100835 8	AA164850, AI347829, AA164851, AI539038, W87820, T91042, AW103512, AI208103, AI538025, AW959576, BF513984, AI886882, AI827139, AW571976, BE565889, AI557283, AI565180, AI673742, AA827331, AA164745, AW665930, AI862333, BE971469, T83877, AI590154, AW966053, AW975618, AW959628, AW978634, AW966534, C14331,

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HODEG86	397	1008379	1 - 634	15 - 648	AC008750.
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HSKNP59	406	100909 5	1 - 960	15 - 974	AI699865, AL036631, AI886753, BF344652, AF077038, AX002924, AL080115, AX002922, U96638, AC010134, Y11587, AF087943, I89947, AK026927, S61953, I48978, AK000083, I48979, AL110196, A77033, A77035, Y16645, A65341, AL049283, X82434, AF116602, AX026824, AX026823, A58524, A58523, A08916, AF090901, AK026744, AF321617, A08910, AF090934, A08913, AK026480, AK025958, AF116631, AL110221, A07647, AK000323, AL137480, AF119875, AK000137, AL359596, AL096744, U77594, AK024538, AL137550, AF119909, Y14314, A08909, AK025084, AF090903, AF090896, AR011880, AF113019, AF116688, AX019230, AK025339, AK026959, AK026784, AL442082, AF130104, AK027096, AL049314, AF130099, AL137533, AK025391, AF225424, AL050277, AF260566, AL133560, AK026542, AF119899, AF177401, I33392, AK026462, AF130082, AK026534, AX019229, AF111112, AF119865, AF130105, AF026124, AF017152, AF026816, AF106862, AL359941, AL390154, I89931, AB048954, AF146568, AL389982, AB048953, AR087170, AL162002, AK025967, AL080159, Z82022, AF116646, AL050149, AF079763, AL049938, AK026528, AL133640, AL137271, S78214, AF183393, AL353940, U35846, AL110280, AR038854, AJ000937, AL122050, AF218014, AF113691, AF113013, E07108, AK026647, AL050116, AL359618, AF111851, AL133113, AL050393, AF314091, AF104032, AL122110, AL049466, AF113694, AB052191, E05822, AL050024, AL133080, AK025092, AF242189, AK026593, S68736, AL117435, AL133565, AL133606, AL122121, AF057300, AF057299, AK026045, X72889, AF230496, AF118064, AK025414, AK027204, AL137538, X84990, AL117457, AL442072, A03736, AJ012755, AF116691, AK026592, AK026642, AL049382, AL359583, AF119860, AF111849, AK026600, AL133075, AF090900, AF158248, AL080124, A12297, AK026865, AK026408, U72620, AF078844, AL080060, AF113690, AK000432, AX040958, AF116654, AK027164, AL117460, AR079032, AF125948, AL359615, AL050108, AF111847, AK027146, Y11254, AL137459, AL162006, A93350, AL137529, I00734, AK025312, AX010492, AL050146, AL122093, AF130110, AL050138, E03348, AF097996, AB047904, E02349, AK026855, AK026630, AK025632, E00617, E00717, E00778, AF067728, AX042059, AK000445, AL049430, AF113699, AK026741, AR059958, AL359601, AF130075, AK025524, AL133016, AF130077, AF091084, AK027113, AL122049, AL389978, AF119878, AB047615, AF177336, AK025209, AF153205, AK025772, AF113676, AF079765, AR038969, AL122123, AF116676, AL049452, AF113689, AF113677, AL137557, AF130055, U67958, AF217966, AB041801, and AF130092. BE799721, AA480375, BE719132, BE719128, BF841831, AI251419, AI270846, AI308612, AI270979, AA953100, AI340555, AI250202, BE041953, AI309146, BE043759, BE043282, AV706824, AW023232, AW020543, AV702772, AV701946, AV726010, AV696790, AV702021, AV726088, AV728872, AV727510, AW960655, AV709232, AV726026, AV705981, AV709101, AV702790, AW963750, AV705433, AV702728, AV705873,

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HE2ES17	408	1009349	1 - 1483	15 - 1497	BG111492, AW439786, AW073883, AV719548, AV706176, BF132037, AU143895, BF671635, AU152574, AI925143, AI018024, AA460521, AU152977, BF593938, AI277889, N35236, AI911015, AV720311, AV720287, AV720565, AV719404, H99645, AA983864, AI539561, AA781828, AII40736, AW474242, AI539533, AI084377, AI367955, N44901, AA860474, AW510585, AI051782, T80249, AI276390, AA460520, AU116935, AA682234, N66333, N66141, AA214431, N98663, BE244676, R38792, AK000874, AF078932, Y10495, Y10496, AF203441, AF203437, and AC007546.
HELHM06	409	1009362	1 - 336	15 - 350	AW327723, AW674864, AL516842, BE882980, AL532515, BE799552, BE896851, BF984921, BE396422, BF826008, BE799625, BF826769, BF218169, AU077063, AV687313, L14076, and AC004236.
HE2AG50	410	1009365	1 - 1794	15 - 1808	AI453045, AL528826, AA856613, AI912949, AI739056, BF966732, AI986110, ALS19448, AW613375, AI379787, BG032945, AW962214, AI914227, AA582587, BF590115, BF514600, BF680870, AI587526, AI867178, AA505399, AA683551, BF431318, AI078274, AI928459, AU144502, AA766846, AA815041, AI281397, BG170712, AA232560, AW051473, AA523261, BF576501, BF108639, BE242521, AW951858, AI354235, AL039035, BF572328, AI301459, AA126940, AA326462, N70794, AI281454, AA651932, BF574933, AI826813, AA278487, AI349091, AA197245, BF672052, AI700825, BF668070, BE247045, BF673072, H43036, AV659423, BF671763, W67786, AI370310, AW631375, W67845, BF966298, AL047459, BF574129, F03536, AI301406, AI630671, BF693378, AA367445, T28398, BG057778, BF790818, BF574845, BF571244, AI525002, AI825974, BE174789, Z20344, BF575895, C15076, D80522, D59467, D59787, D80164, AV701004, AW975618, AW699866, AI569419, AW964532, C14331, AV718530, D81030, D59627, AV738340, D80366, D80258, AV700159, AW966330, AW753053, D81026, AW973541, AV699550, AV718489, AW377671, AW964468, D80064, AI557751, AV718692, AV718681, D50979, AW973445, AW966029, AW959628, AW958993, AV724520, AV701422, AV720035, D80043, AW959799, D80133, AW960465, AW960553, D80248, AV720878, AW966531, AW978634, AV741191, AW966053, AW973334, AW958992, AW965163, AV720533, AV719783, C14389, AV720464, AW966059, AV720791, AV718440, AV720028, D58283, AW966022, AW966041, D59927, D59859, AW949632, D80022, AW973485, D59275, AW949641, AW965177, D59502, D80391, AW965158, D80253, AW966030, AW964756, AW966043, AV742996, AW960473, AW959469, D80132, AW965196, AW965184, AW966534, AW966075, AV718844, AW966065, AW973482, AW966054, AW975621, AW962082, D51423, AV719822, D80196,

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HE2ES61	411	100938 8	1 - 1258	15 - 1272	AF075305, AW439817, AW439844, AI493164, AA203275, BF690753, AA533476, N31463, AI435348, AA838687, AI334356, AI282866, AI823812, AV719236, AA507026, AW138875, AW236781, AW996877, BF445452, BE673101, AA035519, AW118716, AA219612, AW194890, AA737528, AA453621, AC005034, and AB026911.
HE2SO43	412	100939 8	1 - 1107	15 - 1121	BF345442, BE745400, BF002361, BF591185, AW006311, AI740645, AW972577, AW190738, AW872945, BF590839, AW515791, AI337338, AI623327, AI160758, BG055059, AI146399, AI955183, AW130008, AI380399, AI375011, BG222460, AI539558, AI217110, AI371688, AW615545, AI360696, AW004738, AA885332, AA506508, AI264485, AI356161, AA280731, AW873997, AI479723, AI471972, AI077764, AI356162, AI472175, AA557465, AW007779, BE463808, H29892, AI240814, AI521518, AI356160, BE827863, BF215793, AI419525, AW248081, T23536, AI424657, H17888, BF434314, AA877639, R96881, BF000404, AI934283, BF510867, BF584477, R96880, H19299, T88997, R72799, AI370746, BF806860, D45762, AC006547, AC000083, AC000097, AK025106, X56044, AC003060, and AC012526.
HLHCI07	413	100940 3	1 - 517	15 - 531	W31456, W52407, AC005410, AC020744, AL445249, AL132821, AL035652, and AC016925.
HTTBR65	414	100941	1 - 461	15 - 475	BE314959, AW411287, AW411286, BF304101, BF976822, AW411455, BF339991,

HPFCV71	415	1009453	1 - 661	15 - 675	BF571534, AW367868, BF809505, W93139, AA010506, AF095890, D12765, E06025, U35622, U18018, and E06024.
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HCABR46	416	1009479	1 - 869	15 - 883	AW131143, BF343353, AW166982, AI922723, AA769108, AW084960, AI076939, AW189314, AI971285, AW190185, AV701548, AW103994, AI885578, AW167989, AI859425,

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AW674771, AI758714, AW873017, AW102937, BG060158, AA662083, BE207926,
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AI660446, BF964567, AA485528, AI673587, AW951888, BE275026, BF572024, BE940753,
AA932540, AI547316, BF338825, BG165219, BE545063, BE562117, BF340056, AI660299,
AI680231, AV747973, AA099852, AI819676, AI347214, BG177274, AI360433, AV762928,
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BE150996, BF813305, AI266687, T47132, BG252592, BE151249, AI914926, AW885482,
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AV759989, AW972300, AA304122, AW675388, BF742556, AI874164, AW793102,
AW793178, AW166667, AW381330, AA641428, AW793108, AW469444, AI814814,
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BF350311, AI687588, AW364262, AU126627, AW063904, AV747117, AW387219,
AW793151, AI079092, AA349268, AW610497, AW605105, AW394256, BG058223,
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HCRCB80	417	1009482	1 - 1000	15 - 1014	AL137429, AC006019, A65336, AF202636, AL080147, AR038747, AC004485, AK026867, AL389939, AB050534, and AL080227.
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HPMLW78	418	100983 3	1 - 637	15 - 651	AL538180, H47744, BG105704, T28491, BE787797, AA422141, AA127841, BF088491, AA401304, BE707805, AW368612, AW024390, BE063214, AW949504, BE085870, AU119798, AA091414, BE063168, M31170, M86546, M31522, I96217, AF020196, L27453, AF020197, AB043619, AB043620, AJ245963, AJ245962, AJ245966, AF162696, AF313399, AF313401, AF313400, AF313398, and S82001.
HODJK75	419	100984 2	1 - 626	15 - 640	
HODJX27	420	100985 4	1 - 109	15 - 123	AV738340, AV744657, AV744012, AV742732, AV742050, T48593, T26395, AV681505, AV681504, AA585439, AV699103, AV681474, AV681526, AV681486, AV681464, AW955883, AW955403, AW955893, T03269, AV681472, AW963289, AW953750, AV701136, AV701254, AV701435, AA585278, AV701198, AW960162, AW959372, AW955886, AW949707, AW956977, AV701467, AA283312, AV701189, AW960161, AV701301, AV746179, AW949665, AW949667, AV681477, AV681495, AV701472, AV701436, AV701388, AV701297, AW963961, AV699218, AV699144, AV699170, AV699269, AV699229, AV662317, AV742757, AV742025, AV699136, AV662287, AV699123, AV699224, AV662272, AV699125, AV699203, AV699219, AV699131, AV699182, AV699246, AV662247, AV699153, AV699200, AV662257, AA585378, AV742899, AV699250, AV753956, AV662248, AV699247, AV699199, AV699137, AV662242, AV699223, AV699147, AW962627, AV662225, AV701276, AV701320, AV701173, AV701283, AV701471, AV701384, AV662191, AV701449, AV701071, AV701372, AV701088, AV701237, AV701027, AV681462, AV662235, AV701403, AV662218, AV701410, AA585389, AI526112, AV745415, AA585116, D51250, AA585325, AA585329, AV662288, AV699204, AV662268, AV701034, AV701132, AV662223, AV662149, AV701468, AV701030, AV681528, AW962603, AV742733, AV701311, AV699098, AV744949, AV681514, AV681512, AV699156, AV699139, AW951170, AW951316, AV699196, AW962629, AV739506, AV701223, AV699175, AV662289, AA585430, AV743048, AV699197, AV645339, AV701059, AV758536, AV740765, AV681506, AI525306, AV698330, AV692714, AV699129, AV662207, AV699167, AV699119, AV739001, AV662196, AV740192, AV758756, AV662302, AV681525, AV735331, AV701451, AV745948, AV662319, AV746382, AV746276, AV701390, AV681487, AV681523, AV701201, AV753656, AW952650, AV735489, AA585327, AR070327, A94995, AX020191, AR031365, AX020190, AR038669, A30438, AF135243, AB005666, A85395, A85476.

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HODJV85	421	100985 7	1 - 628	15 - 642	W63650, AC004975, AR077702, A82595, AR060385, AB002449, AR070327, I14842, AR087649, A84916, AX027925, AB028859, I79511, AJ132110, A62300, A62298, AR054175, AR008277, AR008281, AX033851, AR018138, AR008278, AF058696, and AR016808.
HOOJO38	422	100991 8	1 - 704	15 - 718	AL531631, AI983085, AL527211, AL526194, AI923500, AI819615, BE901824, AI635186, BG122272, BE728419, BG260421, BG109146, BG024689, BE796594, BE738377, BE731685, BG109875, AW516253, BE794629, BF025942, BE391594, AL528184, BE727443, BE736477, BF795001, BF026707, BG028283, BF794434, BG255190, AI590711, BE562472, ALS31630, AL518218, BG104271, BF965976, BE274333, AV762986, BE729263, BF984059, AW473190, BF338886, AA737352, BE251289, AV655988, BE871215, BE385375, AU123120, BES37431, BF795361, BE563141, BG179543, BE389545, BE279135, AW102952, AI992206, BE274788, AI564728, AA804870, BF663213, BE294212, BE389212, BE277137, AI890776, BF794711, BE894574, BE409929, AV752081, BE793519, BE280595, BE263958, BG165237, BF663378, AV758987, AI890733, BE410686, BE253511, AI458832, BE900482, BE279951, BE782108, BG116106, BF685318, BE385945, BE409462, BF684482, AI589325, BE900553, BF025688, BG104183, BF965657, AI445978, BE261172, BF975083, AI951212, BG024839, AW780427, BF971859, BG028059, BG253625, AV761980, AI683852, BF663906, BE388565, AI434960, AI499080, BE391963, BF683866, BE407371, BE313286, AI683168, BG033353, BE269180, BE260812, AW571765, BF568157, BE273792, AI432555, BE729573, BF679984, AI689491, AL526345, AW410284, BE391998, AV763312, AW269852, AW149044, BF663343, AI871089, BF183135, BE273288, AV682486, AW130195, AL518217, BE275734, AW239186, BE384226, BG165891, BE898135, BE907411, BE265210, AW440291, BE313877, BE280533, BE260744, BE902943, BE544441, BE251633, BF131800, BF568884, AW104857, BE898978, BE206852, BG260357, BE391257, AW583713, BE397380, AW613264, BE614507, BE280528, AW247198, BG027893, BE786936, BF697381, BF124948, AW327828, BE742851, BE740337, BF664259, BF038698, BE895951, BE390445, BF700485, AA131182, AI635179, AW087993.

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HAOSI69	423	1009949	1 - 4383	15 - 4397	AW302927, AW302964, AW303015, AW303021, AW303147, AW303179, AW303194, AW303225, AW303237, AW303239, AW303252, AW304642, and AW304667.
					AL518153, AL514204, BF690166, AL518152, AL514232, AU119073, AI347077, AU141798, BE732782, BE733859, AI186525, AI087288, BF310427, BF690424, BG036070, BE314678, BF982297, BE408935, BF034889, BF026282, BG113234, BE735456, BG249149, BG254771, BE261734, BG164248, BE384352, BG108338, BG166752, BG164026, BG104433, AI912334, BE410400, AI824103, BE382880, BE909819, BG164480, BG180537, BE390020, BE882944, AU123945, BG260903, BG122650, BE879705, AW080962, AA425549, BE408324, BF984892, AI814595, AI953979, AI453532, AI382164, BE396090, AI073747, BF337213, BE539444, BE047090, AL521610, BE273543, BG168476, BG253147, W67603, AI624162, BE899510, BF15611, BG254192, AA425389, BE409154, BG025942, AI689037, BF800051, AI288304, AI081104, AA599485, BE613371, BF689940, BE617351, AA148042, AI276505, AA577596, BE274186, AA516104, AA948080, BG165628, BG167809, AW169156, AU159265, BF061548, W67604, AI333594, AI366087, AW771113, AI351505, AI499061, AA908347, N26056, AA642944, AI023701, AL521609, BE895819, BG027950, AA160603, BE407745, AA403248, AL514203, AI284911, AA563710, BE390287, BE881555, AA487700, W46412, AI755078, AI289794, AA402387, AW770816, BE909356, AI753397, AW771076, H98049, BG153386, AI311390, BE873437, AI660881, BF984639, AI741468, BE893074, BE892029, W44436, BF088795, AI700678, AA148043, BE537043, AW292848, AI073353, BF088796, AI366117, BG112974, AI272818, AL135581, AA100801, BG167152, AA631077, AI085348, BF109995, BG111588, BE091204, BE164704, H99284, AI055890, N32676, AI633564, AI740837, AA613344, W9265l, BF750470, AI278890, BF769504, AW503909, AI123599, AA226806, AI273471, AI298125, AI571777, AA403090, BF207039, AI095335, AA100854, AA102307, AI344561, BF082578, AI924926, N42086, W95203, AA029402, BF741015, AI146884, AI921518, BE167894, AI190622, W46300, AA100676, AA983722, AW954336, AI346589, N40420, BE612645, AI066484, AW369618, AA994114, W44495, AI752230, AA699584, BE718794, AA909844, AW514883, AA113245, AA133137, BE075271, BE075108, BF763944, AA525859, BE718798, AI752231, BF998505, BE718788, BE718805, AW298822, BE718809, BE541980, W48631, BE276181, AI079968, H20622, BE718795, BE772730, N27141, BF833848, BF762434, BF762460, AA151696, AI873252, BE080779, AI274886, AA113772, BF762443, AW263140, AI568929, N75459, BF798824, BE772750, BF689500, BE772733, BE772741, AA535600, AW264602, AW275281, BE926624, AI339890, AI168564, BE081115, AA126942, BE080727, AA453606, AA064623, AI620604, H66084, AI271377, BF750338, AA076431, AW131206, AR028135, I23762, Z23022, 196214, AR034830, M74092, AR043601, AR043602, AR043603, X75207, S78355, M64403, D14014, U40844, L09054, Z29078, I23763, AR034840, U00682, AF212040, S71637, AF182716, AF067056, AF148946, X66970, AR034527, AC004093, AC005743, AF029728, AF267747, AC004686, AC018767, AC068808,

				AC069550, AC010137, AC009233, AC019176, T77237, T77451, T89175, T92084, R18074, R37210, R42969, R42969, R76299, R81200, R81309, H24970, H25674, H26436, H27925, H27926, R89428, R97329, H51747, H51748, H97348, N20142, N40078, N55320, N71757, N72201, N99099, W03329, W23852, W24123, W38317, W39350, W46567, W46650, W48728, W49709, W60289, W60380, W94586, W94768, AA025369, AA063257, AA062709, AA064665, AA064713, AA064705, AA076515, AA113072, AA113073, AA112340, AA113821, AA127152, AA128851, AA156319, AA156380, AA158286, AA160096, AA160820, AA207064, AA204678, AA227101, AA227161, AA502628, AA533833, AA622062, AA622148, AA632154, AA576367, AA662304, AA662686, AA807411, AA864225, AA887065, AA918965, AA962503, N26775, U47703, C03791, C05786, AA062689, AA642544, AA454736, AA487486, AA705388, AA780573, AA852165, AA852218, AA852219, AA906539, AA934071, AI042556, AI074344, AI080448, AI084717, D20540, AI245645, AI143740, AI150778, AI659596, AI350704, AI674613, AI758455, AI864756, AI918938, AI932951, AW302501, and AW440672.
HSDIY67	424	1010157	1 - 1951	15 - 1965	AL526028, AL526085, AL529838, AL535461, AU120059, BG109937, BE780488, AI871620, AL529837, AA557390, BE779119, BE048954, AW300798, AI983510, AI356030, AA991670, AW026416, AI338588, BE697112, AA670019, BF109571, AA205947, AV682666, AI660386, AA975600, BE697110, R19774, AW961461, AW779506, H27830, AA359481, AA905792, BF927854, Z20638, BF355680, AI381389, AI748877, AA092002, R45193, BF369972, AA317627, AW664962, H27599, AI802448, AA007505, BF352188, BF802323, AA358233, BF802322, AW891751, BE670864, BF511450, AW891686, BG035631, BE267560, BE877499, BF814357, AW020710, AI888501, BF752999, AV764282, AI150993, BE536058, BG031791, BE965621, AI340519, AI473808, AI538885, AW020397, AW949931, BF032768, BG252315, AW152182, AW268072, AW813006, AW268261, AW089572, AI312325, AI612885, AI923989, BE965599, BF753056, BE877142, AV755614, BF904194, AI859991, BE047833, AI345415, BF914297, AV733745, AI312542, AI624529, BF338002, BF798503, AA579618, AI609128, AW935969, AV757996, BE963838, BE176248, BG107576, BE965732, BE966278, BE967187, BE889038, AK021950, AF226056, A75291, AC004383, S60260, AL133665, A77033, AL080124, I48978, AK025414, AF119896, AF114170, AJ299431, AI8777, Y16645, AK026642, AF119871, AB048953, AL110196, AF026124, AF090934, AK024992, A93016, AF116676, A77035, AF067790, AF130055, AB048919, AL353957, AL122118, AF000145, X83508, I89944, AF065135, AL359583, AX045627, S79832, AR022363, AF119865, I48979, AK025435, AB052191, AL137533, U88966, AC002467, AF110640, AK027200, AL049276, AL050092, AF116688, AK026528, AL137478, AR000496, AL049382, U39656, Y08616, AK025465, AR068751, AF210052, AF119859, and AK026784.
HSDZM65	425	1010299	1 - 1348	15 - 1362	AI344321, AW194980, AW162622, AW161811, BE695903, AW960568, BF589126, AI701104, AU154426, BE045555, BF033598, AW853100, BF971574, BF814791, AI970794, AI934386,

HPDOC39	426	1010400	1 - 1107	15 - 1121

Column (15 - 1121):

AW593616, AW103951, AI041491, AA242841, AI625865, AI434874, AA401314, AI566521, AI290621, AV749577, AW971727, AA401315, BF476537, AA758230, AII89006, AI817795, AI299825, AI990246, AI400410, AA836980, AI926242, AA400271, N40047, AI203327, AA905174, N21388, N27113, AA136709, AA377492, BF970685, BF197098, AI685731, AW995523, BG255683, BF154433, BF815971, N26455, AA714986, AA469449, BF814570, H99346, L44440, BF814320, AW339852, BF815976, BF817808, BF815188, BF814315, BE788737, BF967003, AA635589, BF816840, BF815182, AI434558, BF817686, BF815658, F01166, R52284, AA781063, BF816868, AA830536, AI982710, AW518858, AI687944, AW771192, AA614183, N52724, BF680375, AV757813, AI208492, BE568290, AW276289, AW995466, AI686601, AA854353, AI636039, BF081570, AW770845, N31343, AA136807, AA467778, N68998, AI699561, BF222527, AV751433, AA525819, BF221739, AA317135, AI869288, AA523694, BE328340, BF109122, AA304659, BF238326, AA294835, AW015496, AI811007, AW295210, BF211839, AI743045, AW664342, AW418500, BF669202, BF345830, BF669114, BE768108, BE768037, BE768028, BF831299, BE536835, R38111, BF815223, AB037768, AL136504, AK001684, AJ010953, AF181120, AF189723, M93017, AF230532, AF225981, M93018, and AF181121.

Column (1 - 1107):

AL518597, ALS21465, ALS21860, AU142321, ALS19163, BE791154, AV710439, AU137468, BG108541, BE875817, BE908178, BE794167, BE616810, BE797530, BG177616, BF791974, BE563172, BF203748, BG122611, BF983927, AU138928, BF304118, AU136676, BG256808, BG166547, BE908232, BE900747, BF981499, BE259007, BF984319, BF982660, BF203883, BE889058, BG121889, BE409876, BG028149, BE886412, AU135659, BE409111, BE777856, BE396964, BE891193, BE737086, BG252022, AW608289, BG115304, BF303724, BE888387, AW392529, BE562432, BE258634, BE889878, BE269473, AI174700, BF794665, AU134289, BG254012, BE254220, BE252060, BF215570, BF691292, BE295498, BE297846, BE409000, BE259383, BE259293, BG106782, BE780774, BF792473, BE539784, BE269036, BF699793, BE936340, AW978187, BF984873, BE089821, AW392532, BE409484, BE884858, BE872222, BF983743, BF983915, AL044183, BE268220, N28894, BF087516, AA488136, BF800736, BF027913, AA143588, AU139273, AI815968, AW405832, BF674380, H11682, N42210, BF336934, W31775, N56608, N40261, BF810364, BG171478, AA805505, AA101513, AA101590, BF203625, AA085473, AI080684, AA338102, H85230, AW235051, AA552394, AA354823, BE645922, AI375591, AA356478, AA189014, AW392524, AA425206, BF083740, BE782032, H73591, AA159876, BG164729, H73817, AA373687, AA912092, BE083129, BF894997, AA356309, AW892368, AW582387, BF758870, R84501, D60569, W25687, T24902, H49162, AI565353, AW835598, T89376, BG011455, AI128815, BE698610, AA813807, AW582390, AA295075, W04674, N29653, BG117269, AA975223, AW381345, R58308, AL521859, AI445105, BE999943, R85283, AL521464, AL519162, BE813178, T80058, AW837148, AF130113, AB009282, AR052337, AC009032, Y12517, and X96392.

HE2PS15	427	1010525	1 - 600	15 - 614	BF244650, AW961558, AW248089, AW967334, BG029757, AV701568, BF219959, BF694529, BE791161, BF037860, BF696944, BF678089, AI186311, BF220033, BF219215, AI148765, AI582766, AI806566, AI209154, AI144495, AW305249, AI189759, AI478931, AA569869, BF965022, N30742, AA569868, AI491886, AI038347, AV739006, AI807215, BE391925, AL046958, BE858225, AI936891, AV742884, AW169997, AA742511, AI251732, AV715771, AV717459, BF668463, AI363204, AI057284, AL046957, AW182041, AI827188, AA115690, AA651663, AA978142, W30854, W15644, AA707791, N94563, AW249748, AA654862, N80826, AV764171, AI005595, BE896961, T90621, W31005, AA284212, BF965077, AV711844, AV734517, AA531530, AI132988, AW592487, AV733754, AV727768, BE565651, BG231096, BF245459, AV717832, AV745224, AV744752, AI190937, BE280227, F30153, AA953551, D53844, AV715232, BF216076, H91807, AA134308, N41841, BF244274, AA983553, AA134316, AA134315, AV746231, BE866551, F28648, H87571, AA468556, AA974508, AI066796, AI305827, AA554533, AA308101, AA654533, AW470941, AA548236, AA884280, AI244424, AA903485, AW023614, AAS57186, AA864769, AA283903, AA650169, AA081589, AW183938, BE892296, BF679200, F36175, AA084667, AW275122, AI302453, AV739848, BE843421, AV741558, AA746065, F27405, AA907836, AA305437, AA852663, H92083, AA654036, T84144, BF247506, AA279759, T89384, BF209126, AA552449, AA906338, AA972090, AA133509, AA730939, AA626444, N56092, AA865834, AA215865, BG230951, H91708, AA134307, AI420622, AA937615, AW975237, AI040250, AA664941, AV746261, N98724, AV746266, F36194, T24920, AA369378, AW105551, AA506732, T83147, AV754243, N56408, F30237, H03246, AA341970, F18332, AA330234, AA635717, AA836574, AW189710, W30743, AI264957, BE074950, BF831201, AA730937, F18565, AA092677, AW975227, AA664664, AI701784, BF527500, AA665052, AA521064, AI674940, H03245, AA552043, BE693458, AW886065, AI000083, AI128403, BF571166, AI674878, AI200568, N94464, H95707, AA657887, AI038336, F20977, BE673362, AI332537, BF683735, AI674878, L25345, F37912, BF239600, AI336903, AA654565, AF054175, and AF116639.
HTTKH22	428	1010596	1 - 1790	15 - 1804	BG258097, BE565269, AW970826, BE972364, AW104509, AI935735, AA428565, AA948090, AI149846, AA564462, BE972491, BF241442, BE144496, AA429521, AA741348, AI357926, AW296387, BG150242, AA412328, AI589867, AW205827, AI916262, T15665, AW090362, AI933368, R12639, BF360955, R20539, AI480273, AI698477, BF083192, BF083189, BF083190, BF229315, BF743777, BF083194, BE972369, AA825483, BE767465, AW371194, BE543997, BE768945, BF229316, AB046777, and AC009464.
HNOJG33	429	1010698	1 - 1694	15 - 1708	AL514076, AU136058, BE871934, BF037005, BE734065, BG121727, BF340061, BE300394, BF203968, BF204799, BE300047, BE538261, AV761233, AW409777, BF805377, AW409668, BF205527, BF816400, BF679197, AV724965, BF206008, BE467989, BF445887, AI903791, AI500392, T64826, AA860771, BG152814, AI382895, AI903792, AW373027, F12113,

					AI740878, H84580, AI369972, H38748, T97648, AA248719, BE537116, BE711210, BF817487, AL514075, R10203, T97682, AA316821, BF003096, AA339588, AW005868, N42355, H24794, AA364975, AU076536, AV742658, BF155770, BF081246, AA772366, BE677850, W96073, AA095922, AA091703, BF307175, AA324375, U01160, AC000028, U81031, S78432, and AJ388529.
HPDVK48	430	1011090	1 - 1811	15 - 1825	AI817702, BE734213, BG109696, BF343215, BG031900, BE902597, BF027605, BF027576, BE893930, BF591342, BE732160, BE384437, AI870638, AI816966, BF974651, BE732127, AW082941, AI955901, AI588852, T51227, T51341, BE732330, BE733010, BE799315, AA688018, BF827100, AB029041, D43921, D88508, and D88505.
HNORJ10	431	1011186	1 - 2847	15 - 2861	AU134078, AU119820, AU133300, AU133937, AV702394, BE877191, BE881502, BE877741, BG108056, AU119090, AU128582, BE782436, BE894349, AU133707, AI755105, AU116910, BG258563, BE788956, AV683379, BG118247, BE778857, AV702635, AU137107, BF965897, BG176784, BF976801, BE884018, AW239292, AI081900, BF978507, AW952777, BE875732, BG027117, BE877650, AI755063, BE878670, AV751366, AW949916, AI814464, BF678160, BG108194, BF571686, AW467192, AU154668, BE535701, AW392400, AA429941, AU146064, AW410667, AU155188, AW410666, AW994720, AW952816, AW129607, AI983856, AU143874, AU157027, AI922802, BG112073, AU153845, AU149778, AU152436, BE778846, AU150846, C06050, BG118808, AU153441, BF211683, AI204482, BF210654, BF217005, AW304738, AA887584, BF240843, BF678567, BF692112, BF571072, AA760671, BF923330, BG250728, BG119747, AA937180, AA504114, AW630580, BF696849, AW130041, AW055333, AU145515, C75335, AW237574, BE565110, AU130502, AI559451, BF572471, BG108209, AW080347, BE176786, BF340233, BF345008, BE737877, BE179704, AA410905, BF699275, AI042306, BF691962, AI752907, AI192876, AI924084, BF349490, BF246432, AA594633, BF794025, AI754970, N66338, AI342267, AA628679, AW674966, AW272202, AI673480, AW835336, AU156216, BE696419, AA171565, AW079029, BE696416, BF982798, AI921994, BF699321, BE696412, AW440948, AA664266, AI572874, D83902, AI754356, AI569623, AI625058, AW468158, BE539716, C75346, BE696421, AI541217, AA244037, D56430, AW794837, BE464416, AU149708, AA613984, AI520695, AA789181, AI818726, AA653377, BE738338, AW835340, AA156339, D53682, AW860422, AW800395, BF691025, AA598526, BE178042, AA904195, AW768275, AA204639, AW674968, AL121041, AA152250, BF919693, BE925260, AA367404, AW615031, BG260753, AA848082, W47003, AW862545, R71408, BE696408, AW860808, T32121, AA627976, BF690899, BF917679, BE937469, AA446236, D81210, AI721007, AW860804, D81637, AA659654, AA037225, BE184816, N23467, AW750094, AI476075, BE764312, M85743, AI446812, AI758576, T32145, BE177013, AA757693, BE712842, BF921651, BE767238, AA853819, BF326140, AI273910, AA279252, AA381186, BE160136, BE244985, AA152260, BE937463, AA508507, D83831, T35966, AA206071, AW753040,

					Accession Numbers
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HPDRG92	432	1011209	1 - 347	15 - 361	AL529603, T96738, R90778, H47758, AL529602, R94024, AA323896, AL523542, AL525995, N51812, AB033116, and AK001713.
HOFMQ81	433	1011303	1 - 915	15 - 929	AL119457, AL121894, Y11587, AF118064, I48979, AF113690, AF130104, AF130082, AF130105, S78214, AF116646, AL110221, AF130075, AF113691, AF090934, AX046603, I89947, AF116602, AL389978, AF116639, AB048953, AF113694, AF118070, AL133640, AL157431, AB049758, AF078844, AL050393, AF113013, AF130059, AL117457, AL133016, AF116644, A08916, AF125949, AF111847, S68736, AL133606, AL359596, AF090900, AR079032, AF116691, AL359601, AF090943, AJ242859, AF116688, AF116631, AL110196, AF218014, AL390167, AL080060, AF138861, L31396, L31397, AF104032, AL049938, AL442072, AL117460, AL050146, AF119878, AL137527, AL162083, AF113689, AF130092, AF090903, AF090901, AL090744, A093016, AL442082, AL049452, I89931, AR059958, X84990, AX019230, AF113676, AL080124, AF113677, AL050277, AL122093, AL133093, AB048964, AX019229, A08913, AK026508, AK026045, AK026865, AB019565, AF090896, AK000212, AL050149, U42766, AL050116, AF106862, AB041801, AK025339, AK025084, AL133075, AK025772, AL122050, AK026741, AF119875, AL050108, AK026855, AF219137, AL133080, E07361, AF113699, AK025092, AB047615, AL049314, AK025958, AF158248, AF113019, AL162006, I48978, AL133565, AL389982, AL122123, AF017152, AL137459, E03348, AL359618, AF146568, AB050510, AK026583, AL049466, AF111851, AL133557, AK027096, AF119899, AK026744, AF119909, AK026784, AX006092, AL117585, AF116649, AL080137, AL122121, AL137557, AF207829, AK000618, AL050138, AL359941, X63574, Y11254, AF017437, X82434, AK026504, AJ000937, AF125948, AF091084, U91329, AK026533, Y16645, AK000137, AF314091, AL117394, AK000445, AL353940, AF177401, AF079765, AB048954, AJ238278, AK026927, AL117394, AK000083, AL137283, A65341, AL359615, AL049430, AK026592, AB051158, AR087170, AL110225, AK024538, AF242189, AK027113, AK000652, AL049300, AK026353, AK026532, AK025484, AF116610,

434	HOFNF27	101131 5	1 - 748	15 - 762	AL133560, AR011880, AF097996, AK025391, AK025491, AK026534, AL137550, AK026086, E02349, A08910, AX042059, AK026542, E07108, AB052191, AL049464, AL117435, A08912, AX026824, AX026823, A58524, A58523, A77033, A77035, AF067728, AK027204, AK026528, AX026528, A03736, AB047904, AK000432, AF225424, AK026959, AF271350, AL133258, AF130099, AF130066, AB034701, AK025967, AF116682, AL117583, AL050024, U00763, AL122098, I33392, AF177336, and AL049382. AW665000, AL521066; AA089566, Z44690, F05145, AL514786, AI678039, AU131437, BE167328, AA926992, AA249468, AW971745, AW804686, AW392670, BE695785, AW861944, AW604723, AW877209, AW858526, AW858525, AL119483, AL119319, AL119324, AL119355, U46349, AL119457, BE705903, BE705906, AW577135, AW372827, AW384394, AW861889, AW858455, AL119497, AW363220, Z99396, AL119484, AL119363, AL119391, U46350, U46347, U46351, U46341, AL119443, BF868687, AL119444, AL119341, AL134538, AL042984, BF868697, AW604726, AL119439, BF868684, BE705905, AL119522, AL119396, U46346, AL043011, AL119335, AL037205, AL134533, AL134920, AL134524, BE705904, AL119399, AL043029, AL119496, AI142137, AL134531, AL119418, AW861954, U46345, AL042614, AL043033, AL042544, AL042965, AL042975, AL042450, AL042542, AL043019, AL043003, AL119464, AF124598, AF109645, Y10320, AF109646, Y11929, U90715, AP001670, AL163204, AF242865, AF242864, AF169365, AF169364, AB026436, AR060234, AX046357, AF169366, AR054110, AJ251859, AX030435, A81671, AJ279014, AR066494, AR069079, and AR043113.
435	HOFND52	101131 6	1 - 591	15 - 605	AW971745, AW392670, AW804686, AW604723, BE695785, AW858526, AW858525, AL119443, AW384394, AW861889, AW858455, AW363220, BE705903, BE705906, AW577135, U46347, AL134533, AL119363, AW372827, AL119497, AL119319, U46346, AL119396, AL119457, AW877209, AL119324, BE705905, AL119484, U46341, AW604726, Z99396, AL119391, AL119355, U46350, U46351, U46349, BF868697, AL119444, AL119483, AL119439, AL119335, AL119496, BE705904, BE705905, AL134518, AL119399, BF868687, AL134538, BF868684, AL119418, AL119522, AW861954, AL037205, U46345, AL042965, BF868684, AL134527, AL119418, AL042544, AL043019, AL042984, AI142134, AL042551, AL119488, AL119464, AB026436, AJ251859, AX030435, AJ279014, AR054110, A81671, AR060234, AX046357, AJ251089, AR066494, AR069079, and AR080280.
436	HOFNL96	101132 1	1 - 563	15 - 577	
437	HOFNF53	101133 2	1 - 2384	15 - 2398	AF228061, AX014812, AF228060, AF228059, and AX014811.
438	HOFMU61	101136	1 - 1296	15 - 1310	

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HOFOF35	439	101149 9	1 - 731	15 - 745	AL520120, AU120794, AU142824, AU142738, AL524453, AL516006, AL531636, AL528608, AU135451, AW960802, BE255275, AF034175, BE251549, BE267417, BE787485, BG260926, BE866693, BF204561, AW402296, AW879901, AA130293, BE783678, AL536177, BE890412, AA026038, BF933394, AW995929, AF061738, AK022055, S65367, and AC006160.
HULFJ37	440	101153 7	1 - 901	15 - 915	AL528378, AU129753, AL523012, ALS23012, BE881260, AL536136, BE379029, AI936124, AW157228, BF036785, BE907027, AI246564, BF684205, AW163233, BF032696, AW167783, BF115257, BE908959, BF206407, AW966037, BF058749, BE905304, AA873153, AI814898, AI653634, BF033796, AW167930, BB908776, BE612522, AL523011, BE312284, BE315082, AL528507, BE260964, AA657525, AA846556, AA581813, AW170322, AI675942, AU126752, AW073723, AW439343, AL536135, BE294834, AA905511, BF983613, BE736100, AI672867, BE271931, BE563428, BF033808, AU565888, AU151827, AU126743, AA443893, AU126776, AU126631, BE048096, AI288014, AI349513, AA605069, AA947686, AI354687, AI344761, AA968896, BG110190, BF036720, AA837515, AU126400, BF035189, AW473570, AA857612, AW243736, AI350498, AI363381, AA677118, AA670096, AA427949, AU151595, BE350678, AW182617, AI560969, AU129491, AV699411, AA622740, AA444088, AV700357, AI283102, AI689102, AA569487, AA126127, AA554302, AI653485, AV745161, AL516918, AI354641, AA856700, BE613105, AI358308, AA071541, AI243590, AI546836, AW005289, W76149, AA244008, AI422558, AA775927, AA063086, AA650016, W72586, AW001140, AV698390, AA550916, N92857, BE904189, AI546843, AA773276, AI302461, AL520795, W25583, AI127036, AU126711, AA037265, AA340693, AI185816, AA160689, AL516917, AA885582, BE866790, AA155767, AI904529, AI564903, AA659174, AW474443, AI051519, AA121966, AI494596, AI689031, BF743597, AI351481, BF743584, AI814052, AA428047, BF155259, BF761628, H99387, AA921901, BF799202, AI970995, AU126531, AA687198, AL520794, AA635808, AA126065, AI972309, AW170212, AA928381, AA364687, BF799608, AI784469, AA065175, AA232437, BF114899, AV702749, BE765150, AI758612, AA090244, AI363998, AI868371, AW150636, AI869410, BF743525, AA092613, N31429, BF689044, AA065174, AI566999, BF155224, C18016, AA525365, AI924384, BF743523, AA528748, AI784640, T28360, BE694608, AA095763, T54666, W19684, AI184108, AI536700, BF688256, AI214861, AA069147, AA834416, BF743622, AA340127, BF063999, AI819683, AA232438, BG055557, BG153008, N90030, AA075883, N88126, AA612817, BF434087, T50502, AA330721, BF743541, AA565183, AA092202, AV697304, AI364889, AI699968, AA428951, AI360411, BG222691, AI908085, AA292397, BF330544, AA630996, R72795, AA155766, AA095477, AA402271, AW366864, AA236707, AW371105, AA720944, BE832973, AI633889, T50637, AI989937, AA055038, AA121965, BE171278, W04805, AA069239, AW496797, T54753, AW799852, AX014110, X55110, I15236, M94250, D10604, AX015411, E04786, M69148, E12896, M34094, AB036426, M34327, M35833, AB025023, M19662, M34328, M61754,

HOFME75	441	1011607	1 - 1010	15 - 1024	AA063136, and AA155768. AL523165, AL515551, AL537265, AL520260, AL531902, AL533764, AL534019, AU123661, AL538449, BF725283, BE271314, BE744146, BE314972, BE514630, AU124220, BF980436, AW239518, BE745207, BE909798, BE266432, BE313375, BF984861, AW162833, AW629964, AW239222, BE019917, AI144171, BF515784, BF128026, AW239501, BE745633, AL531408, BF528125, BF984074, BF983109, AW238810, AW675333, BE887799, BG165843, AW239055, BF036003, BF688322, BF036176, BF314875, AA243255, AW068310, BG253491, AI750829, BG120518, AA114212, AA227340, AL528807, AA488270, BF036567, D83174, AB044778, AB044779, AB010273, X61598, M69246, X60676, J05609, AF100413, D12905, AB044780, AB044781, AF202899, AF178675, and D12906.
HOPKO74	442	1011608	1 - 2246	15 - 2260	AL515550, AL520259, AL523164, AL525036, AL534019, AL537265, AL538449, AL533764, AL520260, AL531902, AL515551, AL523165, AL525035, BE379543, AU123661, BE741174, BE742224, BE741994, BE741741, BE742340, BF725283, BE725283, AI635814, AU124220, BE744987, BE744146, BE747153, BE744655, BG253433, BE745129, BF343576, BF033082, BF980436, BE877236, BF038485, BF338799, BE906099, AW151151, BF037069, BE272242, AI336307, BE898327, BE378159, BG116704, BE514864, BE314972, BG120943, AW239501, BE304338, BE514630, BE909798, BE271314, BE742968, AW162833, AL038803, AI754209, BG028129, BE272350, AW239518, AA641717, AL038804, BF128026, BE868537, AI752340, AW239222, BE266432, AA205447, BE620098, BE745207, BE313375, AW629964, AA176157, AA191544, W68054, AW629878, BE207655, AA454490, BE067208, BE221309, AA315647, AW364803, BE910175, BE019917, AA101234, AA565572, BF684840, AI049605, W92720, AI146365, BE019917, AA305265, AI863019, AA293056, W58348, AA565247, AW162724, AW338826, AI141482, AA987259, AW087936, AI954500, BF688322, AW517393, AL531408, AI755228, AA723072, AW069806, AI336074, BF528125, AI268308, BF984074, AI366790, AI144171, AI811037, AW150385, AI922017, AI191471, AA514403, AA733081, AA565401, AA873716, BF983109, R71440, AI753928, AI927706, AI131532, BF036219, BF695480, AA678650, AW368086, T57921, AI753517, AW238810, AA565403, AI332734, AW339060, AI884409, BF515784, AW950609, AI204058, AW955479, AA651706, AI291428, AI204251, AI479680, AI825961, AI829909, AW192557, AW087929, AA010142, BF983082, AI361591, AI025341, AA070470, AI635486, AI146535, AI355374, AI752341, AI190787, AW674813, AW675333, BF314875, AA130318, T55713, BE745633, AA995846, W58473, AI890829, BF739075, AI690876, AA507465, AW304986, BG253491, AI827289, AA315478, AA889243, AI097500, AA564102, AI249028, BE887799, AW029503, AI401571, AA029192, AA293371, AI499166, AW614931, AA010141, AI589642, BE328767, AW005099, AA719959, AL531407, AA206070, AA971287, AW274613, BE206417, AA457512, AA219278, AA679718, AA777200, AI144387, AA613547, AI313366, AI874203, AV722770, AW176048, BF308081, W96392, W70032, AA974224, AI829452, AW239055,

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